

The Battle of
Booby's Bluffs

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THE BATTLE OF BOOBY'S BLUFFS

✓ The Battle
of
Booby's Bluffs

By

Major Single List ✓

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PREFACE

THIS IS a series of six solutions to the same problem, each solution starting with the lessons learned by the errors in the previous solution. The six solutions are designed to teach the application of the principles as developed in the World War, showing the best methods of using the combined arms. Naturally, it is impossible to include every principle in these six solutions, but it is thought that the most important are shown.

It will be noticed that each solution portrays the actions of a certain type of regimental commander.

The reader will at once see that the general plan of these six solutions is the same as in "The Defense of Duffer's Drift," a story of the troubles of a platoon commander in defending a stream crossing during the British-Boer War.



PROLOGUE

THE BLUES (east) and Reds (west) were at war. This was nothing new. The Blues and the Reds are always at war. They have been at war since the beginning of wars. It is said that in the time of Augustus Caesar the Temple of Janus closed its doors because the Romans were no longer at war; but this cannot apply to the Blues and Reds. They are still at war and, in my opinion, they will always be at war. The Reds seem to have remarkable recuperative powers, because although they are invariably defeated by General A, commander of the Blues and the most remarkable military genius of all time, yet we always find them ready to tackle General A again at the first opportunity. Sometimes they are assisted and sometimes opposed by the Browns, a neutral nation, but generally they are alone in their unsuccessful efforts to hamper General A. Truly, one cannot help admiring the morale of these poor Reds; always they are defeated, always they come forward again. Defeat never lessens their morale. They hope that they will win out next time. Possibly, they have hopes that a stray bullet may kill General A, or possibly they are fighting with the courage of despair and want to end

it all. At any rate, they are always ready for the next fight.

However, this time it was real war, and I, Major Single List, was in actual command of the First Battalion of Colonel R's Regiment, which had just relieved another regiment on the line and was now going into battle for the first time. For years, I had heard of the campaigns of General A, and had hoped that if I ever was lucky enough or unlucky enough to go into battle I would have him as commander. And now it had happened. We, the Blues, had driven the Reds steadily westward until they were holding a line along the Monocacy River to somewhere near the mouth of Booby's Creek, thence northward along the general line of Booby's Creek. Their line was not clearly defined, but we knew that they were making a last stand to hold General A east of the passes of South Mountain, so that when their expected reinforcements materialized they could advance safely through these passes and deploy in the open country to the eastward. Naturally, General A had decided that this must be prevented. We were to make a final attack and drive the Reds back into South Mountain, capture and destroy as many of them as possible, and block the exits of the passes.

By daybreak of this day, June 19, our

regiment had finished relieving the other regiment, and my battalion was now in a fairly concealed position somewhat east of the road running north and south about on coordinate 345. My battalion command post was established in the cellar of the farmhouse at 345.8-729.4. I visited my companies in position, found everything O. K., then returned to my command post and tried to sleep. I was not very successful. This was my first battle, and I was somewhat excited over the prospect. My troops were likewise somewhat excited, as shown by the fact that many useless inquiries were made of me; so many in fact that I was unable to sleep before noon. After noon I managed to sleep a little, but was awakened about 3 o'clock by an orderly from Colonel R with orders and maps, and with a message directing me to report to regimental headquarters at 6 o'clock for a conference of the regimental field and staff officers.

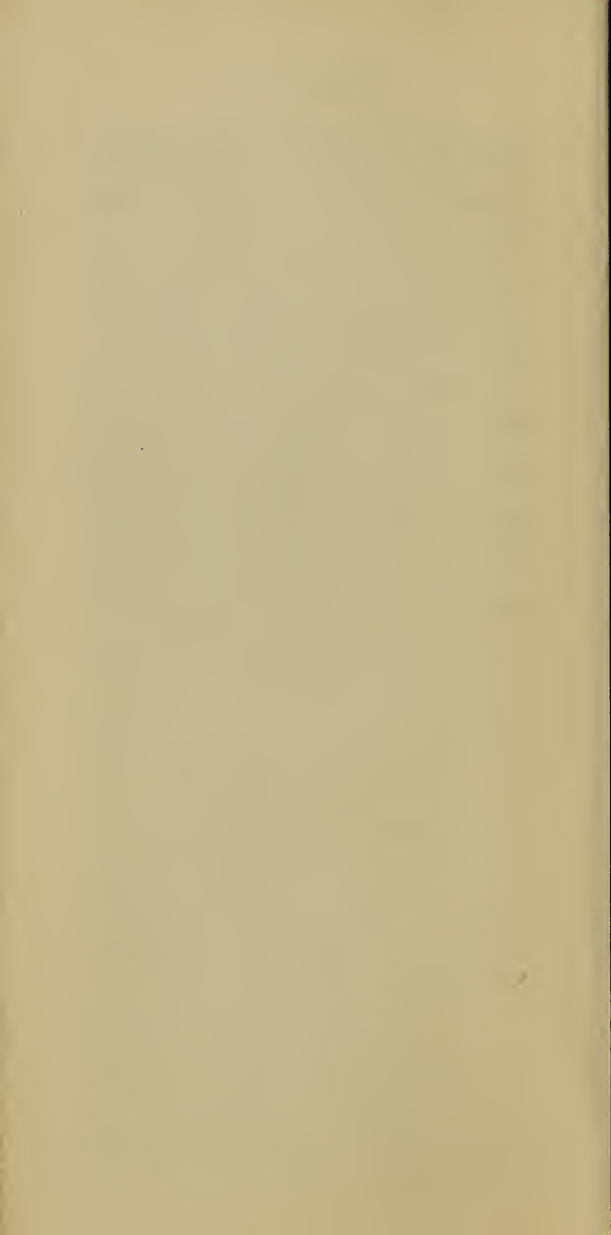
Immediately I looked at the maps and orders received, and saw that they were the plans for an attack the next day. Evidently we were to report to Colonel R's headquarters for a conference on the subject. A glance at the orders showed that Colonel R had decided to make the assault in column of battalions, and that mine was to be the leading battalion. We were to attack due west, the north-

ern boundary being coordinate 730 and the southern boundary coordinate 729, making my area a strip 1,000 yards wide and of such depth as I could force the Reds to give up. The attack was to commence at sunrise June 20 (4.30 o'clock).

The orders and plans were plain enough, but I did not know just what to do about them. I gazed at the map and orders until my eyes were weary and the whole thing became a blur. I was very tired, the weather was hot, and I was very sleepy. So, to make a long story short, I went to sleep. In thus going to sleep I had three reasons: First, I was sleepy and needed the sleep; second, I was to report to Colonel R at 6 o'clock and he would explain the whole scheme of attack to us, and I wanted to be fresh and clear-headed when I was at his headquarters; third, I wanted to give my subconscious mind a chance to work out the solution to my real war problem. Many times I have found it best to let my body rest and my subconscious mind work. Others have told me that they also find that their subconscious minds can work out problems which they cannot work out in moments of real wakefulness. So I went to sleep and my subconscious mind evolved a series of solutions, each of which impressed me at the beginning as entirely satisfactory; but events showed

that, although I learned something by each solution, yet all of the solutions were not by any means such as would have been approved by General A.

Each is given just as it was evolved by my subconscious mind. The reader will notice that each solution was begun with the utmost confidence in its ultimate effectiveness. That is one thing about my subconscious mind, it is always satisfied with what it has evolved until it comes to grief, then with remarkable alacrity it evolves something else. At any rate I slept, and my subconscious mind evolved many consecutive solutions.



FIRST SOLUTION

AT 6 o'clock I attended the conference of field and staff officers at Colonel R's headquarters. He read over the order to us, and explained it in full. I was a little impatient, because it appeared as if Colonel R thought we could not read or at least could not understand a field order. Several times he asked me if I understood my part. I always replied in the affirmative. Once or twice he asked me if I was sure that I understood; but I would not allow him to get me into a controversy. I had long ago decided that I would avoid any arguments with him. He seemed of a cruel nature and a jealous disposition. He did not understand how to handle the American soldier; and it appeared to me that he was jealous of me because I was so successful at it.

I always tried to get close to the soldier and understand his methods of thought. Every one of my men knew I was ready to lend him a helping hand, and even money. This generous care of my fellow-soldiers had often been a cause of dispute with Colonel R.

Our colonel was a good soldier, but he had lost the milk of human kindness. On one occasion I had a great argument with him because I had not reported two boys who had indulged in a shooting

scrape in one of the company streets. To me it was simply an overbubbling of youthful spirits, but to Colonel R it was a crime. It is true that one of the boys had been shot in the arm and had been in the hospital for two weeks, but that was a mere trifle.

On another occasion Colonel R had spoken to me in a very tactless manner because I had allowed three of the boys to leave camp and visit the city the night before a maneuver. They stayed out until 4 o'clock, and naturally were unable to go through the strenuous work of the next day.

As I remember his words, he said: "Major List, you have no discipline in your battalion. I am not sure that I should not relieve you and send you to Bluey for reclassification. You think that you are thoughtful of your men, whereas if you persist in your course you will cause the loss of many lives in battle. It is a serious error to think that even the best men can be good soldiers without a rigid course of training. It is a mistaken kindness to mollicoddle soldiers. You will have men who are inefficient and who will be unable to attend to their duties in the stress of battle. You must understand that bravery is by no means the only quality demanded of an officer. I can find many officers who will lead troops in battle,

but I can find few men who can see that they are properly fed and furnished ammunition and taught to shoot. The days of spectacular charges and gallant deaths are past. Nowadays, you are shot by men you do not see; and the worst possible thing for a major to do is to step out in front of his troops and expose himself to an unnecessary death. You should be in front only when they are being misled. You should never go in front of them in order to show your personal bravery. I do not doubt your personal bravery, but I seriously doubt your personal efficiency."

I did not say much in reply. He had just discovered that the score of my battalion on the target range was the poorest of the three battalions; and I could not deny it. But there were reasons for this poor showing. The noble citizens of the neighboring city had given a festival in honor of the troops soon to go overseas, and this festival had come just on the day that my battalion shot for record. It had been necessary for us to hasten our target practice in the morning so that the boys could be free to go to the city in the afternoon and evening.

I did not take the trouble to explain all of this to Colonel R. He would not have understood because he has no heart for his fellow-man. Also I felt sure

that he was jealous of my undoubted popularity with the boys. I think that he feared that if the matter were put to a vote among them, I would be *Colonel* List and he would be Major R or Captain R or even *Private* R. However, I felt that the United States authorities should know what manner of man was commanding the regiment. So I wrote a letter to my personal friend, Senator Sorghum, and told him that I felt sure that the regiment had lost its heart through the relentless grinding of Colonel R, and that if it did not make a good showing against the Reds in the coming campaign he would know where to place the blame. There was no real insubordination in this letter and no one could criticise my motive. I felt that my duty to my country demanded that when the regiment failed in battle he should go to the Secretary of War and give him the reason for the failure. I was very careful to tell the Senator not to mention my name.

In justice to myself I must add that I also told the Senator not to make any effort to secure promotion for me; that I expected to win my promotion on the field of battle; and that I felt sure that my record in future battles would bring to me all the promotion that I could desire.

Finally Colonel R finished the plans for the attack, after reading the field order several times, and we all went back to our posts. I returned to my battalion headquarters (the farmhouse cellar) and promptly went to sleep. I was tired and needed complete rest before the strenuous day of battle. I was soon sleeping as peacefully as Napoleon before Austerlitz.

At 3.30 o'clock my adjutant Lieutenant Swift waked me. He apologized for waking me, but said that he knew that the attack was to take place at 4.30 o'clock, and he supposed that I wished to go out and look over the ground before the attack commenced. He stated that he had been reading the orders and noticed that the barrage started at 4.30 o'clock from the north and south road about 800 yards west of my cellar, and he had notified the company commanders that they could expect me to meet them at the farmhouse in the center of our sector (345.2-729.6) at 4 o'clock. He also stated that various officers of tanks, machine guns, signal troops, and light mortars had reported during the night; but that he had told them to go to sleep in the next room (where the farmer kept his potatoes) and that I would wake them up at the proper time.

I was much displeased at the action of Lieutenant Swift in making arrange-

ments for me to meet the captains at 4 o'clock. I had not slept as much as usual, and for the moment I was in a bad humor. Also this Lieutenant Swift was quite prone to usurp my powers as battalion commander. He was always taking it upon himself to give orders during my absence. I had told him time after time that I was commander of this battalion and that I would give all of the orders necessary. However, I was quite elated this morning at the prospect of a battle in which I would earn undying glory and have my name written on the pages of history alongside our famous soldiers, so I did not talk very severely to Lieutenant Swift. I only told him that I must again remind him that I was the commander of this battalion, and that he would in future make no appointments for me and give no orders in my name.

Incidentally, to soften my reprimand, I told him that he had done well to dispose of the various officers of tanks, machine guns, signal troops, etc., so smoothly, and that we would let them sleep, poor fellows. Probably they were as tired as we were. I never had the heart to make a fellow being do more work than was absolutely necessary. Of course, the poor infantryman must get up early and take the Red position; but that was no reason why the officers

of other services should not rest at every opportunity.

After I had disposed of Lieutenant Swift with a half reprimand, I found it necessary to frown also upon the freshness of my intelligence officer, Lieutenant Bright. He told me that he had been studying the map, and that he had talked with the officers of the regiment we relieved. As a result, he believed that the Reds were all on the other side of Booby's Creek, and were in force in the woods on the south side of the east and west section of the creek for 1,000 yards east of Hill 443. This was too much. I had forgiven Lieutenant Swift because he had disposed of the various officers of tanks, machine guns, signal troops, etc., but this suggestion of Lieutenant Bright was more than I could stand. It was not the first time that he had seemed to think that it was his duty to come forward and volunteer queer bits of information that he had gathered. At any rate, I did not waste time with him. I just told him that if I wanted to hear from him, I would call on him. Meanwhile he need not volunteer any information.

Thus you can see that I went out on the field in a fairly bad humor for a man who was to participate in his first battle. However, I summoned a smile as soon as I reached the vicinity of my brave

boys, for it would never do for them to see that I was out of humor. How often have I heard my father read of the cheery smiles that made J. E. B. Stuart and McClellan popular. Their soldiers were always glad to see them, and cheered them whenever they rode down the line. In this case I did not feel that I could justly expect a cheer. I was not mounted on a horse and the sun was not shining gloriously; in fact, the dawn was just beginning to break. However, I felt that it would not surprise me greatly if some of the boys should give a huzza when they saw their major coming to lead them on to battle and victory.

There were no cheers on my approach, and I decided that the nearness of the enemy prevented any such greetings. However, my reception was quite cordial. The four captains crowded around me to receive their orders. I did not waste time, but gave them as briefly as possible. I said: "You know all the drill regulations. We have been over this many times on the drill field. B and C companies form the firing line; A and D companies form the support. Lieutenant Swift, you will form the battalion just east of this ridge in the center of our sector, facing west. They will be ready at 4.25 o'clock, as the attack starts exactly at 4.30." The captains

and the adjutant saluted and each captain moved off to join his company.

For the next half hour I walked up and down the ridge, or just east of it, where the whole battalion could see me and be encouraged by my coolness in the face of danger. I felt that each one should know that I was there to go forward with him to victory or death.

I walked along the front of the companies and joked with many of my personal friends. I remember especially that one excellent sergeant of B Company hailed me with a glad shout of "Hello, Single! How do you feel in the face of the real thing?" and I replied with some cheerful remark to the effect that I was going home with my shield or upon it.

I then remembered the young son of one of my best friends, a Mr. Hale, vice-president of the bank in my home town before I entered the military game, so I hunted him up and talked with him. He was very glad to see me, and entrusted me with many loving messages to his friends, and I will also say to his fiancée. He said: "Major, I know you will be with us in any danger, but I have a feeling that you will live through the battle, and I do not think that I shall do so. For the sake of your friendship for my father and for my family I want you to tell them all that

I died with my face to the enemy and with their names on my lips." I wrung his hand and promised to tell them that and much more in case any misfortune befell him. I had known him since he was a small boy, and I sincerely hoped that nothing would happen to him. We were still conversing when Lieutenant Swift came up to tell me that the battalion was ready to form. It was 4.22, so I wished young Frank Hale "God-speed" and left him.

As I was walking with Lieutenant Swift over to the center of the line I had occasion to feel thankful that I had been so careful in the training of my battalion. In the last Infantry Drill Regulations some young upstart had written a statement to the effect that, in extended order, the company is the largest unit to execute movements by prescribed commands. But when I became battalion commander I did not feel at all disposed to relinquish my direct command of my companies, so I had trained my companies to execute the movements of extended order by battalion, with the same commands as in the former drill regulations. Thus I was sure that the attack would come off in the best possible manner. My boys were trained to the minute, eager and willing to fall upon the Reds.

At 4.25 o'clock Lieutenant Swift

called the battalion to attention, faced about and reported, "Sir, the battalion is formed." I told him to take his post, and commanded, "Rest," as I wished the companies to rest even to the last minute before going forward for the struggle which might last all day. I looked at my watch and marked the second hand as it slowly counted off the seconds until 4.30. The eyes of all of my soldiers were on me, and I felt that no one could criticise me for lack of coolness and courage. I calmly stood there, making a few commonplace remarks to Lieutenants Swift and Bright, who seemed anxious to suggest something, but they had learned that I was the commander of this battalion, so they kept quiet. At 4.29 I faced about, and everyone could see from my stern attitude that the time had arrived. I then watched the second hand, which was spelling time for us and eternity for thousands of Reds and for some of us.

Just at 4.30 I lowered my left hand (which carried my wrist watch) and started to command, "Form for attack." The most infernal racket burst forth. Shells by the thousand burst on the north and south road just west of me, and my command could not be heard more than ten feet.

I was dumfounded. Such a racket had never been heard in any boiler-shop

or iron-foundry that I had ever visited. I could not think what had happened. How had the enemy known that we were to attack at this moment? I began to suspect treachery; but I knew that there could be no treachery in my battalion. Possibly some Red spies had slipped over in the early dawn and had heard Lieutenant Swift's statement that the attack began at 4.30. At any rate we were lucky in that the Reds did not have our range, and as long as we remained where we were there need be no casualties.

I waited a few seconds, and was a little amused at the facial expressions of Lieutenants Swift and Bright. Being young men, they naturally were a little more prone to surprise than I was. I smiled to reassure them, and said, "It is all right, my boys; the enemy has not our range, and we seem to be perfectly safe. In fact it is evident that they are aiming less and less accurately; the shots seem to be falling shorter and farther from us."

Then Lieutenant Swift yelled in a most disrespectful manner: "The barrage! It's our barrage, and it travels at the rate of 100 yards in four minutes. Of course, it is missing us more and more. We must catch it. If we don't take advantage of it our artillery will be of no assistance to us."

At once it came back to me. Colonel

R had said in the conference of his field and staff officers that the barrage would start at 4.30 o'clock and move forward at once. Immediately I rose to the occasion. My voice could not be heard, so I opened my mouth several times and waved my hand. It made my heart bound to see how quickly the intelligent American soldier can adapt himself to circumstances. The majority of my men were volunteers and they understood at once what was wanted. Promptly B and C companies moved out in extended order, and A and D companies prepared to follow. At a double time B and C companies spread over the center of our sector, guiding center, one man per yard. This covered about 500 yards, leaving some 250 yards on either flank, which was to be covered by A and D companies as they advanced later at the prescribed distance of about 300 yards.

I took my position about 150 yards behind the center of the front line. The whole battalion moved forward in perfect order, guiding center, the front line some sixty yards behind our barrage.

My heart swelled with pride. Everything was working smoothly. It is true that some of the boys were falling, and my heart bled in sympathy; but I gritted my teeth like a soldier, and marched proudly forward, calm and collected.

When we reached the crest, some four minutes after our advance had started, I halted for a moment and gazed upon the scene with my field glasses. The morning sun showed a perfect picture. One hundred and fifty yards ahead of me were B and C companies in a magnificent line, marching straight to the front as if on parade. Some sixty yards in front of them was our barrage, still going forward at the rate of 100 yards in four minutes. Behind me, 150 yards, and off to the right and left flanks, respectively, were the A and D companies, now in platoon columns. I felt that my weary days of work in the training camp were producing their reward. With a smile I placed my field glasses in the case and hurried forward to regain my position back of the center, midway between the two lines.

I heard Lieutenant Bright say to Lieutenant Swift, "Look at the shells bursting just this side of the creek. Either we have an extra wide barrage or it is their protective barrage in front of their line. My best information says that their line is west of the creek. If that is their protective barrage they will switch it as soon as they locate us, and then we will have an awful time." I saw nothing to justify Lieutenant Bright in this dismal prediction. I did not care

to administer any further admonitions to him, so I calmly marched forward.

After about twenty minutes the left of my front line arrived opposite the trees, already mentioned, on the south side of the bend in Booby's Creek at 344.4-729.3, the barrage having passed this point. I saw a few men break from the left and start for the creek only some forty yards away, but a sharp command from a lieutenant or a sergeant called them back into line and they continued forward.

Evidently some of the Reds were in that creek bottom, but the platoon commander knew that I would send up some men from the support to clear them out. It was his duty to march straight ahead just as I had taught them day after day on the parade ground. I quickly turned to the left and waved forward a platoon from D Company, pointing to the creek bend. Not a second did they hesitate. Bravely they started forward, but luck was against me. I heard a rat-tat-tat from the creek bottom, then a continuous roll of rat-tat-tats. The left of my front line just crumpled up and lay down. It vanished.

The right, true to its training, immediately began to advance by rushes, straight to the front. Probably they had seen an enemy or something to their front. Steadily and surely they rose,

rushed forward and fell, firing to the front. Each time fewer rose and rushed forward. Always some fell. But relief was at hand; the platoon from the D Company was only some 100 yards away. I signalled "double time," and they rushed forward and silenced the machine gun.

For a few moments I breathed freely. But not for long. Suddenly, 100 yards back of me, there was again an unearthly racket, shells exploding and iron splinters z-z-z-z-zing in all directions. Lieutenant Bright yelled "There it is! They have us located!" and truly it seemed so. One platoon of D Company simply disappeared. Half of another was blown into the air. Captain D, with rare presence of mind, commanded, "Scatter, boys, SCATTER!"¹ and the rest of the company abandoned all formation and rushed pell-mell for the creek bottom. On the right the enemy's counter-barrage seemed less effective. Possibly they did not have enough guns, and they made it thicker on my left.

I moved over to my right and placed myself between the two lines, and we continued to move forward. Personally, I felt that this showed great fortitude on my part. Practically half of my

¹A command actually given in an American machine gun battalion in France.

battalion had been killed or wounded, and yet I had not sounded the retreat.

At Bull Run the Federal troops retired with much less loss than that. In fact in no one of our great battles had the losses been 50 per cent. Yet here was I, Major List, still pushing forward after over 50 per cent of my men had been killed or wounded.

For some four more minutes we followed the barrage without accident. Then again we had hard luck. The barrage passed some more Red machine guns concealed in the woods south of the bend, and my line began to crumple up on the left. Still we struggled forward, and I noted with pleasure that a small party gained the top of Hill 407 and disappeared. My joy was short-lived, for just then the Red counter-barrage switched from D Company and fell upon A Company. My last supports vanished, and no first line existed except a few men on Hill 407.

My battalion was ruined. We had captured Hill 407, but at what a price! On all sides my brave boys were wounded and dying. Time after time my name was called, and I stopped to comfort old and personal friends. Finally, to my great grief, I came across young Frank Hale mortally wounded. I stopped and bent over him. "My boy, my boy, what can I do?" "Major," he

said, "can't you call us anything but boys? Don't you think some of us have behaved like grown-up men today?" And he smiled and died.

My cup was full, but it overflowed when a messenger rushed up from Captain B to say that he had captured Hill 407, but he had not been issued extra ammunition and would have to retire if I could not send him some. I had none to send him. I did not even know where to find it.

Though overcome with bitterness at Colonel R for having given me the hardest job of any of the battalions, I determined to be a soldier to my dying breath. My brave boys were streaming back over the field in wild confusion. No human flesh could stand against that hail of lead from the woods across the creek on our left. I sent Lieutenant Bright back to Colonel R to ask for help—that we were utterly beaten. Meanwhile I determined that I would sell my life as dearly as possible. No one at home should ever say that I, Single List, had fled from the foe. We had seen no enemy, but it was evident that many Red machine guns were in the woods south of the creek. I called for volunteers, and some forty brave lads gathered around me.

Remembering my grandfather's story of how he rallied his men in the deadly

Devil's Den at Gettysburg, I seized a gun and began to exhort them to do their duty by their fellow-countrymen. The tyrannical Reds must not triumph. Our freedom was in danger. The country's honor was at stake. Remember the glorious democracy for which they were fighting. I would lead them and be one of them. All became fired with my enthusiasm. They clamored for immediate action. They cried, "Lead on, List, we're with you!" I turned to lead them, but just then three shells burst in our group and machine gun bullets swept us like a hose. I was unhurt, but when the dust cleared not a man of my volunteers was with me—all were dead, wounded, or missing. I looked around the field, but could see no men. All of my battalion had disappeared.

Suddenly, Lieutenant Swift grabbed my arm and said, "Look!" I looked to the rear and saw a thin line of Blue skirmishers coming over the ridge. The Second Battalion was coming up, but it was too late. My battalion had been fighting the whole battle alone, and it was demolished. No amount of reinforcements could reestablish the battle or bring my brave boys (men) back to me. As the line passed by me I saw that the major of the Second Battalion was in command and that he was ac-

accompanied by the lieutenant colonel. The latter spoke to me curtly and said, "Colonel R orders that you report to him immediately. I shall take command of your battalion—what is left of it."

As I walked back to Colonel R, I was very much crestfallen. It was evident that I was to be relieved. Well, I was willing. My battalion was gone and my heart was broken. I cared no more for wars, and I wanted a peaceful time in the Service of Supply. But I did think that Colonel R should at least thank me for the gallant work done by my battalion. In his dispatches he should mention that the First Battalion, under Major Single List, had bravely breasted the leaden hail and captured Hill 407, but was unable to advance farther because of its severe losses.

I did not expect him to mention that my battalion had fought the whole battle alone and unsupported, and had been stopped through lack of support after it had captured the Red fort on Hill 407, but I did hope that he would acknowledge that it had been specially selected for the most difficult task. Also I felt that he should specially mention my gallantry in rallying forty volunteers and advancing to clinch the victory by capturing the Red machine gun nest. He should have left me with my battalion now that the victory was won, and at

night the Second Battalion could have safely taken over the position so gallantly won by us.

I reported to Colonel R. He told me that I was relieved; that he had recommended that I be sent back for reclassification; that I was not fit to command the battalion, and that I would at once go back to division headquarters and report to General A.

I need not give a long discussion here of the explanations given by Colonel R. It seems that he blamed me for not taking the machine guns before they enfiladed my line, but gave no idea as to how I was to do it. He blamed me for letting my men run out of ammunition, but said nothing about the fact that no ammunition carts had reported to me. He blamed me for allowing my men to be caught in close formation by the Reds' counter-barrage, but offered no suggestions as to how it could be avoided. In short, he blamed me and not himself for the loss of the battle. He offered no satisfactory explanation of why he had made my battalion fight the battle alone. He belittled my capture of the Red fort on Hill 407; said it was no victory; that there was not a single Red on Hill 407. He made many heartless remarks about the lack of fighting qualities in my battalion; said it was run like a political club. This last I did not

discuss with him, as I saw that he was moved by jealousy, and I said nothing more to him. I determined to appeal to General A.

At division headquarters General A was too busy to see me, and the adjutant handed me an order to go to Bluey for reclassification. As no one would give me justice, I sat down and wrote to my friend, Senator Sorghum, and told him all about the battle and my victory and about Colonel R's robbing me and my brave battalion of the credit. I knew that Senator Sorghum would understand me and would see that I received justice from the War Department in Washington. The letter finished, I became calm and peaceful, and—woke up.

At first I was displeased with my subconscious mind. It had not at all solved my problem. However, I had at least learned four things not to do:

1. Do not let your battalion become a political club.

2. Do not let machine guns enfilade your line.

3. Do not fail to issue extra ammunition. Look it up.

4. Do not get caught in close formation by enemy's counter-barrage.

These lessons were not enough for my problem. I slept, and again my subconscious mind began to revolve and evolve.

SECOND SOLUTION

AT 6 O'CLOCK I attended the conference at Colonel R's headquarters as in First Solution, but I knew a few more principles than in that solution. For one thing, I felt sure that no troops of mine would ever become a political club.

For years, Colonel Grant had been my ideal soldier. Like him I refrained from useless speech during office hours.

How well do I remember my first regimental commander, Colonel Puff. How military, how soldierly, how dignified on occasions, how punctiliously truly a model soldier. Off duty he was very pleasant and a true friend, but on duty he never forgot himself. Once while I was on a scouting expedition, I had sent in a requisition for rations and had sent also a note of explanation, beginning, "Dear Colonel." The rations did not come, but there did come back the whole requisition and a short official letter to the effect that "Lieutenant List will omit all terms of endearment in future communications. He will rewrite his communication and resubmit the requisition." My party nearly starved to death before the rations came, but the lesson learned was one never to be forgotten. Ah! there was the true soldier and gentleman!

Colonel R was my senior officer, and, as such, entitled to my respect and obedience. Even so, with all due respect, he lacked the military spirit of Colonel Puff. At this meeting of his field and staff officers, Colonel R spent much time discussing the order and asking questions, instead of simply giving orders in a manner which would insure their being obeyed. Two or three times he asked me if I understood, and I always answered: "Sir, the Colonel's orders will be carried out as he commands." He looked doubtfully at me for a few moments, but was evidently impressed by my soldierly demeanor, and said nothing. In the training area he had always found that I had carried out his orders absolutely to the letter, and, although our training had been cut short by the exigencies of war, he knew that I would measure up to the standard.

After talking more about this small attack than General Grant did about the battle of Cold Harbor, Colonel R finally dismissed us. We all went back to our posts.

At once I ordered Lieutenant Swift (my adjutant) to send for the company commanders to report to me for orders. Lieutenant Bright had gone away, without permission, during my absence,

but he returned shortly. I asked him where the ammunition carts could be found, and he replied that they were only some 400 yards to the southeast at the road fork to this farm house. This was very encouraging, and I told Lieutenant Bright so, which pleased him very much.

This Lieutenant Bright was a very capable youngster, but, like all youngsters nowadays, lacked the respect which was rendered to seniors in my youth. Lieutenant Bright was always volunteering information that he had gathered, and even now he burst out with the statement that he had talked with the regiment that we relieved, and that he was practically certain that no Reds were on our side of Booby's Creek. I very quickly told Lieutenant Bright that when I wanted to hear from him, he would be sent for; meanwhile, I could dispense with his remarks. So he went out of the cellar.

Very soon, the four captains reported and stood at attention in front of me. I gave them their orders quickly. I told them that the battalion would be formed in the manner prescribed in the former drill regulations; that Companies B and C would make the attack in the manner prescribed, at a distance of one man per yard; that they would

follow the barrage very closely as long as they were not fired upon by flanking machine guns, but that if so fired upon they would wait for the support companies to clear out these groups, and would then go forward; that A and D Companies would take up extended order formation as soon as the enemy's counter-barrage commenced; that all would at once obtain extra ammunition from the wagons some 400 yards to the southeast at the road fork to this farm house.

Captains A and C were then dismissed, saluted, and returned to their companies. But I had some routine work to settle with Captains B and D. Captain B had submitted his pay roll only two days before, and there were many signatures short. I ordered him to go at once to his company, secure these signatures, and return to me with the pay roll. I took occasion to lecture him on the necessity of doing this work properly. Captain D had not correctly made out his ration return, as it showed that he reported more men needed rations than his morning report showed were in his company. This was a very serious error and I feared that an inspector might come around at any minute and discover that one of my company commanders had asked for more

rations than he was entitled to. He might be court-martialed for embezzlement; so I hastened to order Captain D to go to his company, look up his records, and submit a proper return at once.

I then went over the day's papers with Lieutenant Swift. They were in very bad shape, and I took occasion to tell him that he must never let anything interfere with his duties as adjutant. In two cases, the additions on the morning reports were incorrect. In Company A's report the remarks and the figures did not agree. I sent for Captain A to come to battalion headquarters and correct his error. I took occasion to censure him for carelessness in making such an error—one which a seven-year-old boy would scorn to make. My last duty consisted in writing an official letter to Lieutenant Bright, directing him to explain in writing his absence from battalion headquarters, without permission, while I was away at Colonel R's.

These very important duties kept me busy until 1.30 a. m., but at last all were settled and I could go to sleep. Leaving word that I be called at 3.30, I soon slept soundly.

At 3.30 a. m., Lieutenant Swift waked me up, as I had ordered. I must

say this for Lieutenant Swift—he is reliable. I can always be sure that he will do what I tell him to do; that is, unless I tell him not to assume any authority in my absence. It seems that I can not teach him to leave everything to me. Always, when I am away, I find on my return that Lieutenant Swift has done something or commanded something which in the old army was always left to the major.

However, Lieutenant Swift had, for once, done right in deciding something without referring the matter to me. During the night several officers of tanks, machine guns, signal troops, and stokes mortars had reported. He had put them in the potato room, and told them that I would see them in the morning. I did not commend Lieutenant Swift, as I did not approve of his taking any action without consulting me, but I was secretly pleased that I had not been obliged to see them.

I did not know much about these new-fangled weapons of warfare, and I knew that, in the last analysis, the doughboy would have to take the position. Therefore, I decided to let them alone, and see them after I had taken the position. In this decision, I followed a system or policy that I had learned or inherited from Colonel Puff

and other commanding officers, viz., when confronted with some conditions with which you have not had time to familiarize yourself, the best plan is to just say nothing, and, in general, the situation will work itself out. In this case, the doughboy would capture the position, and these new-fangled ideas would just work themselves out.

The same plan is followed by our most successful statesmen. They form committees and boards when they do not wish to come to a prompt decision. The question just dies out, from lack of interest due to the length of time since it was originally brought forward. I happen to remember that the War of 1812 was caused by the British exercising the Right of Search, yet the peace treaty some years later did not mention the question of Right of Search.

At any rate, I went out on the field, leaving the officers of tanks, machine guns, etc., in their room, to sleep during the battle.

On the field itself, everything seemed to be going all right. I spent the time until 4.25 going over orders with the captains and their subordinates.

My captains were young and enthusiastic, and I had no reason to think that they had not done everything in

their power. But they lacked the broader experience that I had derived from my years of war. I questioned the lieutenants and some of the older sergeants regarding their duty in the coming battle. All seemed well instructed and all expressed a stern disposition to carry out their orders in the grim military manner which has always been the sign of the true soldier. I took occasion to call special attention to the necessity of stopping and holding their formation if enfiladed by machine guns, as I had learned from the First Solution what a horrible slaughter was possible with machine guns enfilading a line.

The men themselves seemed to be in excellent condition, strong and determined. They were not disposed to be enthusiastic, but they were ready for battle. Quickly and quietly they carried out the commands of their superiors, and in every way showed the spirit of military discipline which I had instilled into them.

I happened to notice that one poor fellow was limping as he marched along. On inquiry, I learned that his feet were blistered as a result of poor fitting of his shoes. I was forced to let him go along, but I made a note of his name, platoon, and company, in

order to write to his commander for an official explanation as soon as the battle was over.

At 4.25 the line was formed as in the First Solution. At 4.30 the barrage started, and surprised me a great deal, as I had never been near a barrage before. However, I know that war is a matter of life and death, and that the unexpected is to be expected; so I simply gritted my teeth and gave the orders for the advance. My men marched grimly forward as in the First Solution. They were promptly enfiladed by Red machine guns as soon as the barrage passed the trees on the south side of the bend in Booby's Creek at 344.6-729.3. As one man, the troops stopped, and stood there, except those who fell. Truly these were magnificent soldiers. But the lieutenant waved his hand to me, pointing to the woods, and I at once understood. I ran over to D Company, and commanded Captain D to send forward a platoon to capture the Red machine guns. Before I could say anything more, Lieutenant Swift interrupted with a very foolish question: "Shall not the line lie down?" I had failed to include in my orders a statement to the effect that the line would lie down when enfiladed, until the machine guns had been silenced.

I could not think of everything, and those captains of mine were allowing their men to stand and be slaughtered instead of ordering them to lie down. I directed Lieutenant Swift to see that they received the order to lie down, and again turned to watch the platoon of Company D in its attack on the machine guns.

Captain D was the least efficient of my captains, and I had least confidence in him. Only three days before he had asked me to tell him something about how to take machine guns. My reply was: "The only way to take machine guns is to go after them."¹ So, now, I wanted to see if Captain D had learned the lesson I had so grimly imparted. It seemed that he had understood the lesson, but it was again forced upon me that I was not able to rely upon great intelligence from my subordinates.

The platoon had actually started for that machine gun in column of squads. I had not time to explain to Captain D, so I ran forward to the platoon, catching it just before it reached the creek bottom, and ordered "As skirmishers!" Luckily for me and for the platoon, the machine gunners were playing on the line of Company C, which they enfiladed, and they did not notice my

¹ Actual words of a colonel of infantry in one of our most famous divisions.

approach. So the platoon, with me at its head, burst upon them and captured the whole party, two guns and some twenty men. Just at this moment the enemy counter-barrage came down on Companies A and D in support; but they quickly deployed into skirmish line and lay down. They escaped utter annihilation, thanks to my foresight in giving them these orders.

Promptly upon cessation of machine-gun fire, the line rose—what was left of it—and started forward. Again I took my place in the center. The two support companies, A and D, advanced by rushes in order to avoid the enemy counter-barrage, which was very heavy on Company D. Everything was going along all right. But it did not remain so. The barrage was about 500 yards ahead, and I noticed that on the right Company B started to double time in order to catch up with it again. Company C on the left also started to double time, but just then some more enemy machine guns in the woods south of the creek, which had been passed by our barrage some twenty minutes before, opened up on us, and again my left was enfiladed. Company C on the left at once halted, and lay down; but Company B on the right continued its march. I was in despair. It looked as

though everything went wrong unless I myself was in charge. I ran toward Company B in order to halt it until the machine guns had been silenced, otherwise we would soon have no line at all.

Before I reached the company, a shell struck Lieutenant Swift in the hand, or rather on the hand, for it took away his whole hand. I stopped at once to apply first aid, and bound up his arm securely. Casually, I remembered that every man of my battalion fully understood how to apply first aid. It was a matter upon which I had insisted during the training period. However, I realized that there were other things of equal importance, when Lieutenant Swift asked me where he could find the station for slightly wounded. I did not know; Colonel R's order had given it, but I had casually passed it over as not applying to me. Poor Lieutenant Swift had to start to the rear, with a vague hope of finding it. Hundreds of others were doing the same thing.

Meanwhile, Company B had marched so far ahead that I could not hope to stop it. No one ever seemed to think that he should act on his own initiative. Everyone waited for me to do everything. Well, Company B was gone, and I supposed it would stop some time; or at least, I would soon extricate Com-

pany C from its dilemma, and under my leadership it would advance more rapidly than Company B, and the line would be reestablished.

I looked to the left to see what was being done by Company D, the left support company. Just as I had expected, it was also waiting for orders. I could not be everywhere in the field at once, and I had not time to go over to Company D and again personally lead a platoon to capture the machine guns which were enfilading our left. I called out a corporal who was lying in the grass near me, and told him to go over to Captain D and tell him to send forward another platoon to capture the machine guns on our left; then to go forward to the platoon somewhere near the machine guns that we had captured and tell its commander to advance against them when I advanced with some men from Company C. The corporal started off at a run, but I had to call him back and make him salute properly in order to be sure that he had understood his orders.

I waited a few minutes, and saw that the corporal arrived safely at Company D. Very promptly a platoon moved out. Horror of horrors! It started for me instead of for the machine guns. Evidently, the corporal had misunder-

stood my message. I could rely on no one. I ran to the platoon, and asked the lieutenant what his orders were. He said that he had been told to report to me with his platoon to capture some machine guns. As though I carried the machine guns around with me! I was very much displeased, and I took occasion to tell the lieutenant that he should stop to think over his orders, and be sure that they were reasonable. The lieutenant said that he had always believed this to be correct, but he remembered how one day in a lecture, I had quoted, with much emphasis, the words of Tennyson:

Theirs not to reason why,
Theirs not to make reply,
Theirs but to do and die.

and he also remembered that only a half hour before I had taken command of a platoon and captured some machine guns, consequently he thought I wanted to do it again. I drew myself up and told the lieutenant that if I wanted any advice from him, I would ask for it.

Just then, the machine gun opened upon us, and I had to take command of the platoon. I felt that I could not rely upon the lieutenant, as he had shown such lack of initiative. I formed the men as skirmishers, placed myself at their head, commanded "Fix BAYO-

NETS" and "CHARGE" and away we went after the machine guns. Bravely my men followed me, although the machine gun was mowing them down like a scythe. Twice the fire swept from right to left, but missed me each time. The third time I was not so lucky. Two bullets hit me in the left leg, shattering the knee and breaking the hip bone. I was out of the fight, and possibly a cripple for life. Lieutenant Bright at once applied first aid, and sent three men in different directions to find a litter to take me back.

While I was lying there, in a semi-conscious condition, many things happened. The remainder of the platoon carried on the charge, and silenced the machine guns. Company C rose and started forward a third time, but was soon stopped again, and what was left of the company seemed to stop for good. A lieutenant from Company B came to say that Captain B had passed over hill 407 and had reached the creek bottom, where he was digging in, as our barrage had already stopped for at least ten minutes on the ridge beyond. I happened to remember that Colonel R's orders said it would stop for twenty minutes and then go forward again. Captain B's lieutenant wanted to know what Captain B should do. Should he

advance with the regiment on his right, or should he wait for Company C on his left, which seemed a doubtful proposition, as he had seen nothing of Company C for some time. I struggled to tell him to wait for Company C, as he was ordered, but I could not make myself understood. Lieutenant Bright replied for me, or rather he replied: "Tell Captain B that Major List is badly wounded and cannot continue; that Captain A is in command; that neither I nor anyone else knows anything whatever about what Colonel R's plans are, as Major List never tells us anything, but does it all himself. That he will have to act as he thinks best, or get new orders from Captain A." I struggled to rise and tell him to carry out his orders exactly as I had given them—that "orders were orders," but the loss of blood and the pain were too much for me, and I again sank back into unconsciousness. Among my many troubles, I remembered, with a great feeling of satisfaction, that I was so badly wounded that I would not have to hunt for the station for slightly wounded. I smiled with pleasure at this advantage—and woke up.

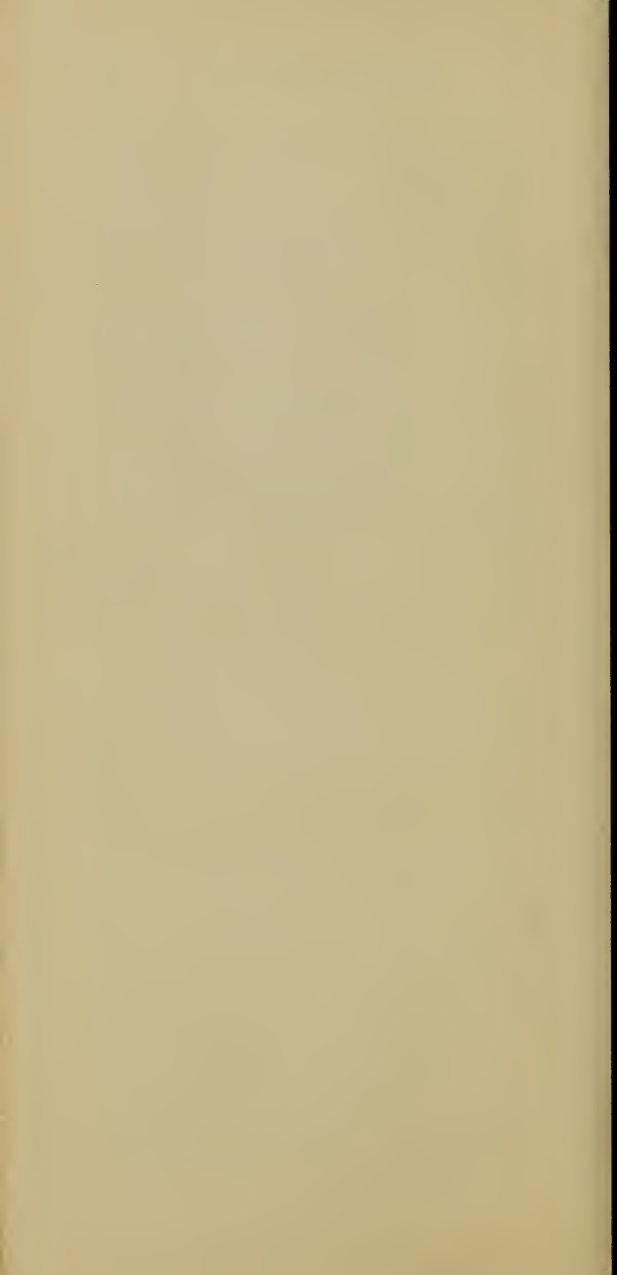
Evidently my subconscious mind was working a little better. I had learned several more lessons, as follows:

5. Do not do it all yourself; let others do their own work, even if not done quite so well as you could do it.

6. There are more ways to take machine guns than simply to "go after them."

7. The subordinates should be fully informed of so much of the situations and plans as may be necessary for them to carry out their own duties, coordinate with others, and assume additional duties if necessary.

8. Be sure to make your messages so clear that they cannot possibly be misunderstood.



THIRD SOLUTION

AT 6 P. M. I attended the conference at Colonel R's headquarters. Colonel R was very serious; seemed much impressed with the fact that there was going to be a battle, and it was evident that to him battles were very serious affairs. This was but natural, in view of the fact that Colonel R had never had the opportunities for thorough education that I had been so fortunate as to obtain. In my school, we had battles nearly every day. I remember one week in which we had six battles, and in every one of these battles I made an excellent mark. So, now it was with me simply a question of applying what I had learned.

Colonel R went over the whole situation very carefully, and at once I saw that I had been selected to command the assault battalion. In fact, Colonel R in almost as many words said to me that I had been selected because of my standing in the schools, and because of the fact that I was thoroughly familiar with all of the requirements of making an attack. Colonel R pointed out in his order that I had been given the following troops to help me:

- 1 signal detachment
- 1 company of engineers
- 2 75-cm accompanying guns

- 1 Stokes mortar section
- 1 company machine guns
- 2 platoons tanks

He also stated that other artillery, machine guns, and Stokes mortars would help me in ways as pointed out by him; but I did not listen particularly, as I did not see that it was of especial interest to me. Always, I had been taught to fight my own battles with the forces in my command; and I never sought outside help. I wanted to fight only with the troops at my disposal; if I couldn't get the other troops under my command, I did not care particularly what happened to them.

It had been impressed upon us time after time at the schools that only one man should be in control of troops. He should be responsible for the results, therefore, I expected to get the results with the troops directly under me and to consider no others.

Colonel R read his orders and went over his maps with us, telling us at the same time that he would give us copies. This he did. Evidently, he had never learned the approved system whereby the orders are dictated by officers of the rank of Colonel and less, and copies are made only in cases of troops commanded by generals. Of course, the book always states that the orders (by

a colonel or less) are thus and so, which "if engrossed would be as follows," giving the exact orders as was in this case so erroneously given us by Colonel R in writing. Altogether, however, Colonel R did very well for a man without the advantages possessed by those who had been to the schools, and he especially showed great ability in selecting for the most responsible positions those who had been to the schools.

On my way back to my battalion headquarters, I determined that there should be no errors in my handling of the orders as was done by Colonel R. He, poor man, had not possessed my advantages, and could be excused. However, I would not make such mistakes.

As soon as I arrived at my battalion headquarters, I said to Lieutenant Swift (my adjutant):

(1) The enemy holds the country to the west of us. We attack tomorrow morning.

(2) My battalion leads the assault and takes the position.

(3) You will send messages to the captains and staff to be here for conference at 9 p. m.

When the officers of tanks, engineers, etc., report, you will tell them to be here also at the conference.

(4) You will issue the necessary instructions regarding supplies.

(5) Messages to me here.

It will be noticed that I issued these orders exactly in accordance with the approved method in troop leading. Many times I had seen the great advantages of this method. Only once before had I employed it so effectively, viz., when we were ordered to get ready to go to the Mexican border. That time I received a telegram at 2 a. m. to be ready to move at 5 a. m. No previous preparations had been made, but to a man with my education it was very easy. I promptly went over to the company office, sent for the first sergeant, and said to him:

(1) There is trouble in Mexico. Many U. S. troops are going to the border.

(2) This company is to be ready to move at 5 a. m.

(3) You will make the necessary arrangements.

(4) You will issue the necessary instructions regarding supplies.

(5) Messages to me here.

There are three things to be noticed about these two orders:

1. They are exactly according to the troop leading form, consequently nothing is omitted, nothing is forgotten.

2. They are short. It is always desirable to inform the subordinates of only

so much as is necessary for their particular purposes.

3. They "pass the buck." It will be noticed that in both orders, the matter of supply is neatly handled. Only a man of my education could have done that so well. I did not know exactly what to do about the supply, so I neatly passed it on to the next man. Possibly, he will pass it on the next man, which is O. K., as eventually it will reach the person who can handle it.

This is an idea that is learned by much practice; always the order eventually reaches some one who can do it. To repeat for clearness. I do not know exactly what to do about supply, so I pass it to the next one. If he knows what to do, he will do it; otherwise his order to his subordinate will contain the same words viz: "You will issue the necessary instructions regarding supplies." Eventually, it will reach the person who knows how to "issue the necessary instructions regarding supplies." Truly, it is a great advantage to have gone to the schools. Some less educated officers would have spent much time trying to learn just what were the necessary instruction regarding supplies.

Having started the wheels to turning by my order as issued above, I began to work out the solution of the present

problem. In all of my experience, I had never yet seen the problem which I could not solve in the required four hours. So with my experience, I felt sure that I could solve this one easily within two hours. At once, I ran across certain very serious difficulties. However, I shall give here in a brief manner my Estimate of the Situation, as, at the schools, we were always required to make an Estimate of the Situation, even if we did not actually write it down in the problem.

ESTIMATE OF THE SITUATION

Mission.—Very simple; to drive back the Reds in our front, on our sector.

The Enemy.—The Reds were somewhere to the west of us. I called in Lieutenant Bright (my intelligence officer) and asked him what he had been able to learn. He was very unsatisfactory in his reports. It seems that he had talked with the officers of the regiment which we had relieved, and he had received very different opinions. Some of them said that the Reds were east of Booby's Creek, some of them said they were west of it. One of our patrols had returned with information that they were in the creek bottom and another said that they were on top of the ridge west of Booby's Creek. This was

all very confusing, and not at all as I had been taught. Many times, I had seen cases where our instructors had manifestly put "jokers" in the problems, but they had never given us erroneous information concerning the enemy. It is true that on one occasion, an instructor had told us that we should not rely on every message that we received, but the very next day another instructor had told us that we should do so, hence there was no confusion. Likewise, there was no information as to enemy's strength and his probable intentions. Altogether, the Estimate of the Situation was not very complete as regards The Enemy.

Our Own Troops.—This was very easy. General A commanded all of our troops, Colonel R commanded my regiment. Our particular regiment was to receive support (I had not paid any attention to the special manner) from special artillery and machine guns. In addition I was to receive support directly from

- 1 signal detachment
- 1 company of engineers
- 2 artillery 75 cm accompanying guns
- 1 Stokes mortar section
- 1 company machine guns
- 2 platoons tanks.

This was all very easy, except that,

in the school, we had never used Stokes mortars and tanks. This did not worry me a great deal. I simply decided to keep them in reserve until called for. As to the rest, it was very simple. I simply followed the approved form as follows:

(a) Signal detachment: If wireless, they always set up every hour on the hour for 10 minutes. If wire, they always maintain the necessary communications.

(b) Company of engineers; Again, it was quite simple. The engineers always build a bridge or destroy a bridge. Also, they guard the artillery. In this case, they would build a bridge over Booby's Creek. The exact position made no difference. I decided to put it in the middle of my sector. As to guarding the artillery, I would simply have them guard the 2 accompanying guns.

(c) 2 artillery 75 cm, accompanying guns: In none of my problems had I been given such a thing as an accompanying gun. Evidently this was something new of Colonel R's. However, the answer was easy. Always the artillery is ordered to take position near ——— and support the attack. I would have it do so.

(d) 1 Stokes mortar section: Nothing of this kind had been used at the schools in their problems. As we had always won the battles, I decided that the best

thing to do was to put this Stokes mortar section in the reserve where I could call on it when needed.

(e) 1 company machine guns: This was fairly easy; or rather, would have been perfectly easy if we had not already had those 2 accompanying guns. Always, the machine guns had supported the attack, and always the artillery had supported the attack. Now, in no problem had I ever seen both supporting the attack. Therefore, I decided to have the machine guns "assist" the attack. Incidentally, the machine guns always took position on some prominent hill; so I had to look up a hill for them, which was very easy.

(f) 2 platoons tanks: Like Stokes mortars, these were new paraphernalia to me; therefore, as with the Stokes mortars, their best position was in the reserve.

Plans.—At first, I thought that this was the easiest part of it. I had always managed to evolve some plan in accordance with some previous problem in the school. This matter of plans had been very difficult, because of the lack of system at the schools. Time and again I had asked the instructors for something definite on which to base my plans. Invariably, they had said that it "depended upon circumstances," and we

could get nothing definite. To me, this was the greatest weakness in the schools. There was no accuracy at all, and it had become a great guessing contest. However, after a month of fuming and fussing about this lack of system, about this continual harping on the fact that they would not tell us whether it was best to envelop the flank or to make a frontal attack; about whether it was best to defend with three companies in the firing line and one in support or with two companies in the firing line and two in support and about a lot of similar cases of lack of definiteness on the part of our instructors, I made out what I called my "Dope Sheet of Instructors" and I began to acquire great military ability, and incidentally, good marks. The following are a few extracts from my "Dope Sheet of Instructors":

<i>Instructor</i>	<i>Remarks</i>
Brown:	Great for detail; decision of little importance; execution of decision very important; nothing positive as to attack or defend
Jones:	Always attacks; hit his decision; makes no difference about execution; can leave out whole regiments, he would never cut for it
Smith:	Always attacks; always envelops a flank; strong for

power of rifle; always say something about the infantrymen being last resort; say little about artillery; strong on "fire superiority."

Williams: Always relies on Artillery; wins the battle with it; look out for problem of river crossing.

Wright: Always defends; preferably two companies in front line; great for marking on details; must put down every squad; counts them.

All: Pick out problem like their last previous one; study and follow it.

Now here was I at last with a real problem before me, and I did not see just what plan I should follow. There was no last previous problem like this one, because we had never had a frontal attack, and no Red instructor had taught at the schools. Always we had enveloped a flank or had defended a line. I decided that I must proceed without enveloping a flank, since I could not defend. However, I could at least apply a part of my learning. Always we had put two companies in the holding attack and two companies in the enveloping attack—now, I could put two companies in the fighting line and two companies in the support line. The matter

of fire superiority worried me considerably. Many times I had asked the question of just how one could determine when he had obtained "fire superiority," and had been told that it "depended upon circumstances," but that in a real battle it would be so simple that it could not be mistaken.

Decision.—To attack.

Details of Decision.—(See Orders).

Orders.—At 9.00 p. m. I dictated the following orders to the assembled officers, except that the officers who were to be attached to help me with tanks, machine guns, etc., had not arrived, and Lieutenant Swift took notes for them:

1. The Reds are to the west of us. Our army attacks tomorrow.

2. This battalion and attached troops attack at 4.30 a. m. and drive back the Reds.

3. (a) The 2 accompanying guns will take position near this farmhouse and support the attack.

(b) Companies B and C will form the firing line.

(c) Companies A and D will form the support.

(d) Machine gun company will proceed to hill 441 and assist the attack.

(e) Two platoons of engineers will build a bridge across Booby's Creek at 343.5-729.5; time to be given by me later; two platoons will protect the artillery.

(f) Signal troops will connect me here with Regimental Headquarters and with the 2 accompanying guns.

(g) 2 platoons tanks and 1 Stokes mortar section will constitute the reserve, take position in ravine at 345.6-729.7 and await further orders.

4. Extra ammunition will be obtained at road junction about 400 yards south-east of here. Each unit will make its own arrangements about other supplies. Station for slightly wounded at 346.8-728.8.

5. Messages to me at center of support.

Owing to my great experience, the actual speaking of this order occupied me only a few minutes. By 9.30 p. m. I was asleep.

At 3.30 a. m. Lieutenant Swift woke me up, and I went out on the field as in previous solutions. The barrage opened at 4.30 just as at other times and we started forward. Very soon, the barrage cleared the machine guns in the woods south of the bend and the men in Company C began to fall. However, as I had been taught at school and as I had taught my men that the support was not for small reverses, it was the duty of the captain of Company C to take care of his left. This he did very well. He sent several squads in that

direction and about half of the company continued forward behind the barrage. Very soon, more enemy machine guns raised their heads after the barrage had passed, and soon all of Company C was engaged in a fight to its left, being entirely at right angles to its original front.

This was a condition of very little importance to me, as I had expected difficulties, but I very quickly and in a truly Napoleonic manner diagnosed the situation. The Reds were south of the creek. Therefore their left (our right) was their weak point. If I could defeat their left, I would swing around and envelop their right and it would have to fall back. In fact, the whole battle at once assumed a familiar aspect to me, viz., an envelopment; and I let my mind stray from its concentrated thinking just long enough to record a few stray sentences of appreciation of my old instructor, Major Smith, who said that it was *always* best to envelop a flank. As a matter of fact, until my right defeated the Reds in its front, I was the one being enveloped, but at any rate I was on familiar ground; and as soon as I drove back their left, I would swing around and envelop them, and all would be just as I had learned in so many approved solutions.

Being now on familiar ground, the rest was easy. I promptly left Company C to fight its own battle, ordered Company D into the gap on the left of Company B, placed myself at the head of the remaining support, Company A, and continued forward. The enemy's counter-barrage came down on us at the same time as in previous solutions, but the companies quickly formed as skirmishers and we continued forward, Companies B and D some 60 yards behind the barrage, Company C almost at right angles to them and now fighting in the creek bottom north of the woods. Company A advancing by rushes and lying down to avoid the enemy's counter-barrage. Our losses were quite severe, and I mentally reminded myself that of all losses, only some 20 per cent actually died, so I continued on my way serenely confident. Company C was having difficulties, and Captain C sent me a message asking for reinforcements; but I sent back word that I would soon envelop the Red left and the Reds in front of him would retreat.

In this formation of attack, we continued forward. Very soon, the enemy counter-barrage was passed and I formed up Company A in line of platoon columns, as I could thereby keep

better control of this reserve. I remembered distinctly a statement that was often quoted at the school, viz "Always retain a formed reserve; it will serve to clinch the victory or to prevent utter defeat." I had tried to get them to tell me when to use it to "clinch the victory," but again was told that it "depended upon circumstances." Always the same old dodge to avoid giving the student some dope on the solution. Even so, now in real battle, I had the formed reserve and I was soon to make the enveloping attack. Company C was making the holding attack—nothing was left undone. We continued on our way, following the barrage. The barrage passed over hill 407 and its ridge to the south, crossed Booby's Creek, proceeded steadily nearly to the top of hill 442, then stopped for the 20 minutes as originally laid down in Colonel R's order and as stated in previous solution. Promptly, and in a manner which showed the effectiveness of my training them to depend upon themselves in unexpected situations, Captains B and D ordered their troops to lie down until the barrage started forward again. Truly did this demonstrate my faith in their judgment and in my training. I could have told them that the barrage would stop for these 20 minutes just

this side of the top of hill 442, but I hoped and expected that they would act just as they did act; so my faith was justified. Very soon, as the enemy's fire was quite deadly, they fell back a few yards to the creek bottom, prepared to go forward quickly. This was again a tribute to my training of them in self-reliance. Meanwhile, I had halted the reserve, Company A, in a very advantageous position at the road junction about 450 yards southeast of hill 407 where they could move (1) over the hill to help Company B (2) along the road to the southwest to help Company D, or (3) almost due south to help Company C. The company was kept in line of platoon columns, as I wished it to be well in hand. While we awaited the further advance of the barrage, I felt that everything was satisfactory. The enemy's counter-barrage had ceased back of us; the fire of Company C on my left was dying down, thereby showing that the Reds were retiring as a result of my threat to their left flank; and to the front Companies B and D were in a strong position, almost a natural trench.

For the next few minutes, I diverted myself by watching the antics of an enemy aeroplane just over our heads. It was firing at something, and its fire

seemed to be in the nature of a signal. As I had unfortunately not brought with me any of the signal men, I could make no real progress in reading the signals, but at any rate, it was excellent flying. Several times the aeroplane circled directly over my head and each time dropped a few star shells. One of my men remarked that it was very pretty, but that it was not war; and I felt a kind of superiority over these ignorant Reds who were so poorly trained that one of their airmen would fly around in circles and drop beautiful shells when it was so evident that we were winning and he would surely be more useful elsewhere.

Some ten minutes after the barrage had assumed its stationary position on the front slope of hill 442, I heard the rat-tat-tat of enemy machine guns from the direction of hill 443. I gave the matter no especial attention, as we were not injured. However, Lieutenant Swift became very much worried. He rushed up to me with his map and said "We must take that hill 443; our barrage has passed there, and they are now enfilading Companies B and D on one side and Company C on the other. I saw his point, and at once ordered two platoons of Company D to take the hill at a double time; to stop for nothing

except to fix bayonets; not to fire a single shot. I feared that it was too late; and so it proved. Here I had been contentedly waiting ten minutes doing nothing whatever while the enemy machine guns on hill 443 had been adjusting their sights with occasional shots and placing themselves in perfect position to enfilade all of the troops I had except this reserve. I was not sure that this was the time to "clinch the victory," but I was sure that if it did not hurry, it could not "prevent utter defeat."

Hardly had the two platoons from Company D started before I received messages from the captains of all three companies, and each said that he must have reinforcements, that his men were being absolutely destroyed by the enfilading machine guns. I turned to give orders for the two remaining platoons to also go for this hill 443; but I never gave the orders. Just as I opened my mouth, some five hundred shells exploded in the exact spot where my two remaining platoons were standing. The air was full of arms and legs; and when the dust cleared I could see nothing of those two platoons except a few lone men who were running and staggering away from this holocaust. It seems that the Red airman was not amusing himself with those star shells; he was point-

ting out our exact position, and the whole Red counter-barrage batteries plunked down one round on us at one time. Nothing was left of us, except myself and Lieutenants Swift and Bright.

Being human like others in spite of my war training, I felt a decided aversion to my present location; so I quickly started after those two platoons. And, in spite of the fact that they were going at full speed, I managed to catch them just as they reached the creek bottom to the northeast of hill 443. We went no farther because the firing had stopped on our right, and I was amazed to see a white flag waving over the positions of Companies B and D. On our left, the firing soon died out, and I concluded that Company C had hidden in the woods. Shortly after a message came to me from a sergeant of Company B to say that he had surrendered because the captain was dead and only some 40 of his men were left. A corporal from Company D crawled along the creek and reported to me that he had escaped; but that some 30 men and one wounded lieutenant had surrendered; he supposed the rest were dead. No messages came from Company C, but desultory firing at odd times showed me that some few of the company were clearing the woods.

It appeared that I was commanding nearly all that was left of my battalion, now amounting to only two platoons.

For a long time I held the creek bottom with those two platoons. Eight times, I tried to send a messenger to Colonel R, but each time saw the messenger caught by the sweep of several machine guns. I was puzzled as to how or when I should recognize the fact that either I or the Reds had "fire superiority." It was evident that out in the open, where those eight messengers had fallen, the Reds had "fire superiority"; but I was still holding my own in the creek bottom, I saw nothing to indicate that the Reds had "fire superiority" over me in the creek bottom. Of course, if the Reds had suddenly risen up in great numbers and had charged my position, then I would know that they had just a moment before had the "fire superiority"; but just at that moment I would have the fire superiority and would slaughter them as they advanced. We were safe from enfilade by the machine guns; and I felt that "fire superiority" or no "fire superiority" we could hold on until help came. But when would it come?

I still had a company of engineers waiting back there for orders to come forward to build a bridge; 1 company

of machine guns were somewhere on a hill top to the east (provided they had not moved or been destroyed); and 1 section Stokes mortars and 1 platoon of tanks were in reserve. All I needed to do was to get a message back to them. But this I could not do. Bitterly did I regret that I had not brought with me a signal man; or had not at least ordered the signal troops to stretch a wire or make arrangements for visual signals. Six more messengers were sent; but all fell under the machine gun fire. Lieutenant Bright, who knew the signal wig-wag code, tried many times to wigwag with his hat, but obtained no results. All of us searched our pockets for mirrors or anything that would reflect sunlight, but we found nothing. There was no hope for it but to sell our lives as dearly as possible.

Grimly, we held our position for two hours. The enemy may have thought they had "fire superiority," but I did not acknowledge it; so we held on. Finally, about 8.00 a. m. a machine gun opened up in extension of our line to the northwest, and many men were immediately hit. I could not see the machine gun; but it was evident that a machine gun had slipped around and was now enfilading our line perfectly. Evidently, the Reds now had "fire superiority"; in

three minutes 50 per cent of us were hit. I surrendered.

The Reds took us up to hill 443 and then over to the west of hill 442, where I met Captain B who had been brought in on a litter, as he was seriously wounded, but not killed as was reported by the sergeant. He said that everything went beautifully until the machine guns opened up in prolongation of his line. After that, his men tried to dig in, to hide, to run, but it was all useless. He was shot before he could put up a white flag, and over half of the company were shot before they finally put it up. If their surrender had been delayed some four minutes longer, there would have been no unwounded men to surrender. Company D men said about the same thing.

As we marched westward, a column of prisoners guarded by a few Red soldiers, I looked about me; and I saw that the Red Infantry was comparatively untouched; my whole battalion had been defeated by a few machine guns, who undoubtedly had fire superiority when they enfiladed us. Also I saw that my idea of enveloping the Red left was utterly at fault. The Red left was miles to the north. All day we marched to the west, and finally stopped for the night in one of the passes of

the mountains. The scenery was beautiful; but I had no eye for beauty. I was very tired, and I sank to the ground, in utter exhaustion and ——— woke up.

My sub-conscious mind was evidently progressing somewhat. I now had a few more lessons at my command, viz:

9. In modern warfare, with large forces, there are no real enveloping attacks; a surprise flank attack is so easily delayed that it becomes a frontal attack. With interior units, it is of first importance to sweep the whole of the enemy's line at once. Any angle in your line exposes at least some of it, to enfilade fire, and any line exposed to enfilade fire is surely ruined.

10. Signal troops should be used to connect you to other places. This means you should not often move but if forced to move, you should have the signal troops connect you in your new position.

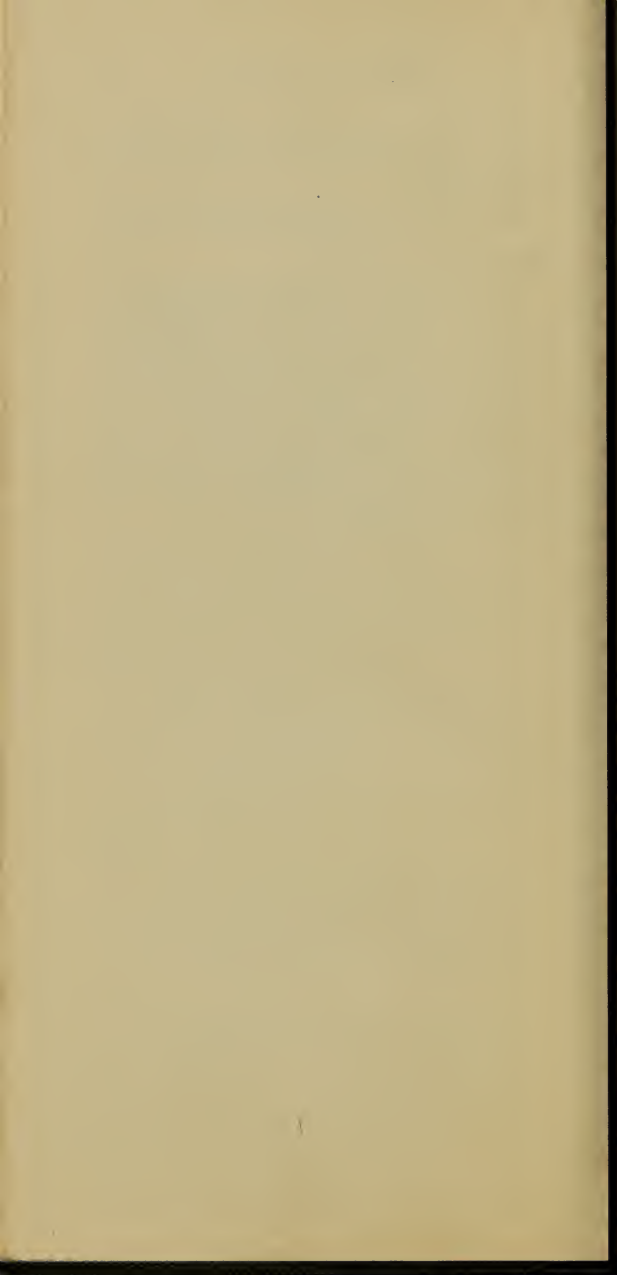
11. Engineers are good for something besides building bridges; also, they are not now often needed as artillery supports.

12. Accompanying guns should do more than shoot at things in general; they should have a target possibly changing, but always a target that you know.

13. Machine guns also need exact targets just as is the case with accompanying guns.

14. Stokes mortars and tanks do not belong in the reserve.

15. "Fire superiority" is a matter of nerve; as long as you are winning, you have "fire superiority"; when you are losing, the enemy has "fire superiority"; when you are doubtful whether or not you have "fire superiority," it is probable that you are winning but are afraid that you are losing.



FOURTH SOLUTION

I N order to be sure that I did not miss anything, and also to meet my old friend, Captain Strong, who was an old college mate of mine and who was now at Colonel R.'s headquarters, I started out about 5:00 p. m. on my way to the conference scheduled for 6:00 p. m. When about half way to headquarters, I ran across Billy Flight, another old college mate of mine, now in the aviation corps. Billy was just going up to take a view of the Red lines, and he invited me to go along. He assured me that he would return in time for me to reach headquarters by 6:00 p. m. I seized this opportunity to take a ride over the Red lines in an aeroplane, and incidentally to learn something about the Red positions. We made the flight all right, but we did not see any trenches, because we spied a Red aeroplane which Billy and I chased for several miles until it ran us into a lot of other Red planes. Billy did some expert diving, and I had the thrill of my life while we were getting away from their neighborhood.

This little encounter delayed us more than we had expected. I was some 15 minutes late when I reached Colonel R.'s headquarters. I told the colonel the

cause of the delay, and he said very little to me except that it was foolish to risk my life in such a manner. The Old Man was pretty serious. He did not say much to me about the delay, but two or three times he called me down as I was telling one of the other majors a joke about one of my lieutenants who had misunderstood my signals on a march and had turned his platoon off on the wrong road, making it necessary to hike some six extra miles in order to reach our position. The Colonel told me that I must remember that this was a matter of life and death, and that I must go after it with all my force, and win out. I told him that he could rely on me; that I would be right there from the Kick-off to the Touch-down; that I had a team that couldn't be beaten by any bunch of Reds that were ever gotten together. This seemed to pacify him a little.

The Old Man certainly was serious. Time and again, he called our attention to some special points in the order. I began to see that he felt that it was up to us. I noted everything down just as he wished. He had always been fair with me, and I certainly intended that nothing should go wrong because of any omission on my part.

I realized that this war game was a little new and that there were some

points in it which required careful attention. I did not feel sure that I knew it all. I had been every minute on the job, and had recently been made a major because I had been so much on the job. At college, I had started in as a green man, and had made the Varsity team in some six weeks. Finally, in the last game, I had made the touch-down which won the game.

Now, after all our practice, we were in for a real game. Even so, I did not intend to let my conceit lead me into errors; so every time Colonel R. mentioned anything with emphasis, I noted it down so that I would be sure to attend to it. He specially told me not to let my line be enfiladed by machine guns; not to think that I could do it all; not to fail to use all of the special troops that were assigned to help me. This was all old stuff that I had learned during the period of intensive training, but I noted it down just the same. If anything struck me as being in the least doubtful, I asked lots of questions until it was cleared up. Colonel R. always went into these points with me in great detail, and I finally felt that I had it all straight. At last we were dismissed and I returned to my headquarters in the farmhouse cellar.

It was a jolly bunch that I found at

my headquarters. Lieutenant Swift was playing on a mouth organ and Lieutenant Bright was accompanying him with a guitar which he had found covered under some rubbish in the farmer's cellar. I told Lieutenant Swift to send for all of the bunch to meet me at 10:00 p. m., at which time I expected the representatives of the signal troops, machine guns, stokes mortars, etc., to arrive and report to me. In fact, to be sure that they would come promptly, I telephoned to Captain Strong at Colonel R.'s headquarters to hurry them up, as I wanted to get my orders all settled as soon as possible.

While we were waiting for them to come, I asked Lieutenant Bright what he could tell me about the enemy's machine guns, as Colonel R. had especially cautioned me not to let myself be enfiladed by machine guns. Lieutenant Bright said that he had talked with the Intelligence Officer and many other officers of the regiment that we had relieved and had received reports from several of our own patrols, but that we were not positive of the Red position. He felt positive that there were no Reds east of Booby's Creek, but he felt sure of nothing on the other side. They might be anywhere.

I noticed that it was now some

three hours before the meeting at 10:00 p. m., and I told Lieutenant Bright that there was just time for us to go out on a patrol, and see what we could learn. Lieutenant Swift said that he would also like to go, but that no one would be left to take care of reports that might come in. I told him to let the old office run itself for once. So we three went out on a little patrol of our own, taking two of the headquarters orderlies along with us.

It was quite an adventure, and we were especially successful. We went to the bend in the creek, and followed along the north bank for about 300 yards. At several places we heard Reds talking, and felt sure that they were placing machine guns in the woods on the south bank. Finally, just as a lark, we slipped across to the south side and captured two Reds who were by themselves. However, one of them was quite brave, and he kept yelling out something which aroused the others and they came after us. We did not have the heart to shoot this Red soldier in order to keep him quiet, so we had to just tie them both and run away as fast as we could in order to save ourselves. We got away safely, though Lieutenant Swift was wounded in the arm and had to go

back to the hospital, thus leaving me with-no adjutant.

At 10:00 p. m. all of the various officers of the special troops and also the captains of my companies were with me at the farmhouse, and we set ourselves to work to see what we should do. First, we had a little gabfest in order to get acquainted, and I found two old friends among the special officers. Truly, it was a pleasure to see them. Then, I made them a little speech, in which I said that I knew all about my own team—the battalion—but that these new members of our team were beyond me and I wanted to ask each of them what he could do.

(a) The signal detachment officer said he could keep me in touch with anything. I told him to do so—to keep me in touch no matter where I went.

(b) The engineer officer said that his strong point was fighting, though no one ever believed him; that they always wanted him to build a bridge. Just to pacify him, I told him that I would make him our reserve for fighting.

(c) The accompanying guns officer said that it was all foolishness about his accompanying me; that he would accompany me by fire; that he would watch my line and keep his shells just a little ahead of it. This was approved.

(*d*) The Stokes mortar officer said that his long suit was shooting into ravines; so we told him very simply to shoot into Booby's Creek, that it was a whole ravine to itself.

(*e*) The machine gun officer said that he was strongest on overhead barrages; that if I would just let him get indirect fire ahead of me, the Reds would wish they had never been born; so I told him to watch me and keep ahead of me.

(*f*) The tanks said he was good in open country, but that woods were bad for him. He was told to follow the barrage in the open country and destroy all machine guns that he found there.

I then told Captains B and C that they would cover the front, north of the creek, at the usual distance apart of the skirmishers. I directed Captain D to take his whole company just back of the left flank, follow the barrage closely, and jump across Booby's Creek as fast as possible, and when the barrage passed the clump of woods, to capture those machine guns before they had time to open up on our line. Next, I told the captain of Company A and the engineers that they would be the reserve, and would follow behind the center, being careful to deploy as skirmishers and lie down in order to minimize the losses from the enemy's counter-barrage.

All of us then carefully studied the map for an objective. Always, during training, we had been given an objective, and it had been impressed upon us that all of the experience of the English and French in Europe showed that an objective must not be overrun. The disaster to the British at Cambrai had been more or less indefinitely charged to their failure to stop when their objective had been reached. In the trench fighting which we had practiced in our training our objective had in no case been more than 1,200 yards away, and generally it had been about 800 yards. So we all searched the map for an objective about 800 yards away. We could find none nearer than the line of Booby's Creek, some 1,500 yards distant, so, to my great regret, I had to designate Booby's Creek as the objective. I started to ring up Colonel R. and ask him if this was too far an objective. We noticed in the order that the artillery barrage would halt for 20 minutes on the slope beyond Booby's Creek, so it was decided that this was the best place for the objective. All were then told to carry lots of hand grenades, as my training experience showed we always needed lots of them to capture an objective.

After our work had been completed we all felt satisfied, and sat around for

some two hours reminiscing about the old times at our various alma maters. Finally, about 11:00 p. m., we gathered around the council table, and sang a few songs: "It's Always Fair Weather," "Way Down Yonder in the Cornfield," "Adaline." It was 1:00 a. m. before the party broke up.

At 3:30 a. m. Lieutenant Bright woke me, and I went out on the field. Everything looked encouraging. The fog was lifting, and it promised to be a bright and sunshiny day. Nothing could be better. It is true that the Reds could see better on a clear day, but our spirits were greatly improved by the fair weather and our morale was excellent on a bright sunshiny day. It made me think of the beautiful day when my college swamped its rival in baseball by the score of 16 to 1, and we almost had a real fight because they called us Free Silverites.

At 4:30, the barrage started, and we followed it as in the last solution, with Companies B and C in skirmish line and the tanks waddling along with them. However, this time the line went forward without any deadly enfilade fire from the woods on our left. The men of Company D were right on the heels of the barrage, jumped across the creek the moment that the barrage passed and

smothered the machine guns. This was deadly work and many of my men were killed. The enemy machine guns were often some distance back from the creek and fired through lanes made in the trees. As a result, if they raised their heads after the barrage, they managed to get in some shots before the men from Company D could cross the creek and get them. Four machine guns were captured, but the rest got away. It was deadly work. But Company D, with fearful loss, cleaned them up so fast or kept them so busy that they could not disturb the rest of the line. As a result, the line moved forward with precision, just behind the barrage, and reached the objective. Company D, or what was left of it, came up and extended the line just on the east slope of hill 443, and we proceeded to dig in and consolidate. I sent forward the engineers to consolidate the position. I had always heard that engineers should be on hand to consolidate a position, but I never knew just what this meant, and it appears that engineers themselves do not know. Obediently, they went forward and spread through the lines and gave a lot of advice, but in reality they joined in as infantry, and helped to hold the position. As this was what the engineer captain said he wanted I felt that I had done just right. The

tanks reported that they were stuck in the creek. I thought it was a good place to be stuck, so it was all right.

Meanwhile, I told my signalman to send a message back to Colonel R. to the effect that we had taken our objective, Booby's Creek, and were now consolidating the position. As this had to be signalled, and then telephoned, it took some time. In fact, I did not expect any answer. I only wished to show the Old Man that I had succeeded, just as I had told him I would. I rather expected that he would send forward another battalion to relieve me at dark and I could then return to the reserve and reorganize my force, now somewhat cut up, though not at all seriously injured, as their losses had been only some 20 per cent.

I directed Company A to dig squad trenches with large intervals in its reserve position east of the small ridge through hill 407. Then I went forward to the front line to see what was to be seen. Our barrage started again, the 20 minutes being up, and went on over the bluffs and valleys to the west of Booby's Creek. My accompanying guns had ceased firing, and the stokes mortars and machine guns either had ceased firing or were firing on targets not in my immediate vicinity. As the enemy seemed fairly quiet, I congratulated my-

self that I had won a hard fight, and that tomorrow would be another day, and possibly tomorrow another battalion would do the attacking. Meanwhile we had won enough glory for a while at least.

My satisfaction was not lasting. My signalman handed me a message which he had received from Colonel R., some 20 minutes after our barrage had started on its jaunt over the hills and valleys to the westward. This message was stern and to the point. It said:

"You were given no objective period. You should not have stopped until the barrage stopped and not even then. Keep going. Hurry!"

It thus appeared that I should now be following the barrage on its scenic tour; and it was now 500 yards away and going strong. I gave commands and messages to hurry forward, but it was at least half an hour before we could get started, as everybody was busy digging in. Some of them did not want to go, and some did not believe that I had given such an order as I had been so careful to have it explained to the last private that the creek bottom was our objective, and that we would stop there. Incidentally, they had laid aside their hand grenades and had to find them again. At last I got them started, and

they hurried forward to catch the barrage before it had lost itself in the Pacific ocean. My machine guns and stokes mortars did not help at all. I tried to send back a message to them, but was told by the signalman that, although the signalmen were on the job, yet they did not have any orderlies and could send messages only by telephone or by visual signals. However, they did catch the accompanying guns and told them to help. In fact, these two accompanying guns did the best they could, but with all due credit to them I must say that the barrage made by them was about as effective as nothing at all. Once or twice I thought I saw the burst of one of their shells, but I am not sure that it was not an enemy shell falling short.

At any rate, off we started and progressed beautifully until we reached the top of hill 442. My men passed over, and I reached the top of the hill in time to see the last flick of dust from our barrage disappear over the ridge some 900 yards to the west. This was a little comfort; at least the barrage was not lost altogether, and by quick running we might catch it. I remembered that I had once run 100 yards in 10 seconds; therefore, my men should cover ground in twice that time, which would make them catch the barrage in a little over

$9 \times 10 \times 2$ seconds = 180 seconds or 3 minutes.

Altogether I calculated that in 5 more minutes we would be as well off as ever, and my error would be compensated.

But it was not to be. I saw my line of men some 200 yards ahead of me going at a run (as fast as they could run when loaded down with hand grenades); and then I saw the most awful destruction that I ever witnessed. Machine guns, artillery, mortars, everything seemed to open up on that poor thin line, and it just naturally went out of business. Some few of the men reached the ravine at the foot of the hill and hid in the trees. Most of them fell. A very few ran back by me on the hilltop. It even seemed as if the enemy was vindictive, and they pursued the few who ran by me. Shells and bullets followed them and soon I was in the midst of the awful carnage. It was evident to me that the battle was over as far as I was concerned. I looked to the east and saw the Second Battalion coming at a double time, but it would take more than a battalion to capture that hilltop. Being a true sport to the last, I stuck to my post and with my glasses looked at the enemy position, so that I could tell the commander of the Second Battalion of what the position consisted. I saw wire

along the whole front; I saw a few Reds standing on the hill making signals to the rear; I saw a few new trenches here and there; and I thought I could locate a few concrete machine gun emplacements. It was evident to me that even if we had been right along with the barrage, we could never have struggled through that belt of wire and demolished those machine guns without the help of wire cutters, smoke and tanks. Yet, I had no organized wire cutters; the stokes mortars were not close enough to help with smoke, and the tanks were stuck in the creek bottom. It is true that there were some engineers scattered through my line fighting like infantry; but they were using their rifles, and they do not carry wire cutters except on special occasions.

I saw that I had still much to learn about this war game.

After my men had all streamed past me, I still stuck to my position on the hill. I determined that I would not leave, but would wait until the major of Second Battalion came up. Meanwhile, I would learn all I could, and tell him on his arrival. But even this was not to be. Very soon I heard the scream of a shell coming directly toward me, but I stood and did not flinch. It struck me, and tore away part of my shoulder

and then buried itself in the ground behind me. It did not even explode. I was killed by a "Dud." It flashed over my mind what my old college friends would say: "Yes, List, the man who made the winning touch-down in 1910 was in the Battle of Booby's Bluff; but he was killed by a 'Dud'." My life was ebbing away, and everything was becoming dark. Suddenly it occurred to me that I was alone, that no one would ever know that I was killed by a "Dud"; so I felt comforted and actually smiled as I lapsed into unconsciousness—and woke up.

My subconscious mind had done well. I knew several more lessons:

16. The business of war is not a game. It is a science, and there are always new ideas in the business. It cannot be partially learned in six weeks, and can never be entirely learned; always one can learn something new about it.

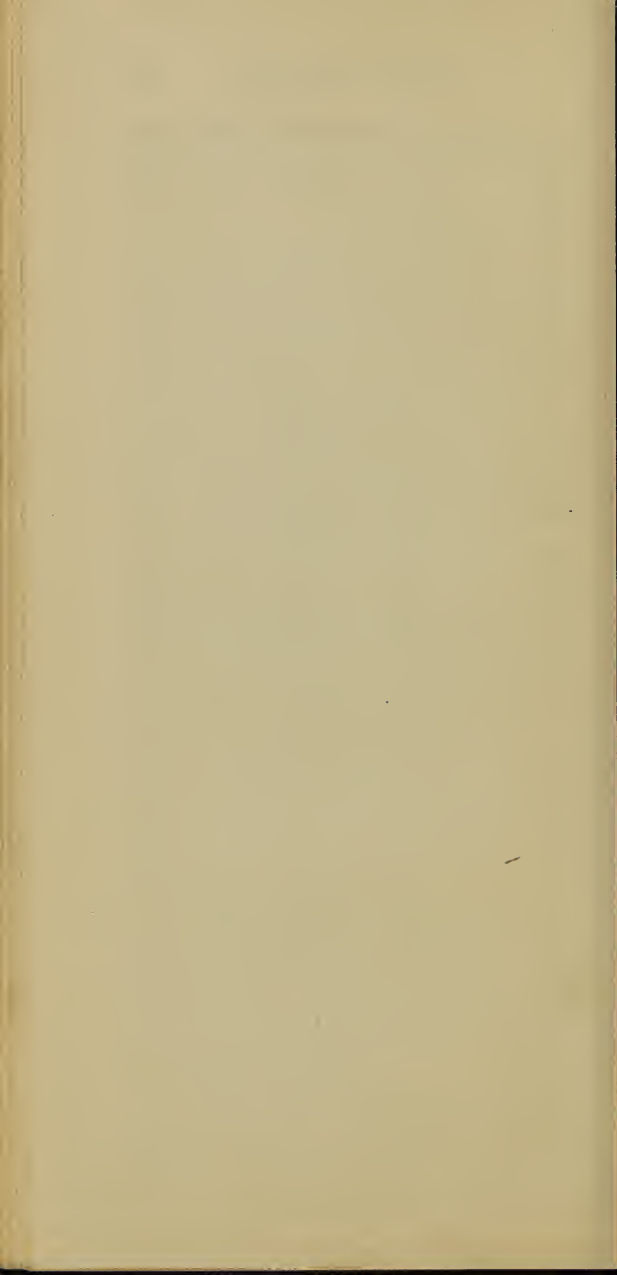
17. There should be no limited objective in an attack; the barrage must be followed to its end, and then the captured objective must be exploited as far as is possible with the troops remaining in the attacking force.

18. There should always be a battalion headquarters, even if the major is not with it. This headquarters is preferably

at the head of the telephone line, and orderlies and messengers should be there to connect up with places not otherwise accessible.

19. Engineers can fight, but are to be used for that purpose only when necessary. Front line engineers are to help forward the rest of the troops, especially tanks and artillery.

20. Such jaunts as night patrols and aeroplane rides, must not be taken by commanding officers. No commanding officer is justified in unnecessary bravery, as he may be killed, and many more will be killed because of his death. First: he should never risk himself; second: he should never risk his staff, unnecessarily.



FIFTH SOLUTION

AT 6 P. M. I was at Colonel R.'s headquarters, and we promptly went to work. Colonel R. was very anxious to see that I understood everything. This was the first time that I had seen the Colonel since my return from a course with G-5. I had always been impressed with the fact that the Colonel was a thorough student of the art of war, and my recent duty with the G-5 had shown me that he was much better than most of the other officers with whom I had become acquainted. However, I was again impressed with his thoroughness. He called my attention to several things, asked many questions, and brought out the lessons which are already listed as having been learned. Especially did Colonel R. tell me to be careful to put all of my assisting troops to the use for which they were best fitted.

Finally, we went carefully over the minutes as shown by the artillery barrage lines, and I figured out just exactly the minute that the artillery would stop and again start at hill 442 and its north and south ridge. Although I was not in the artillery, I had always been impressed with those beautifully exact parallel lines which they always drew

just 100 yards apart showing that the artillery barrage moved at the rate of 100 yards in 4 minutes.

At 6.30 a. m. the artillery would stop on hill 442 and its north and south ridge; at 6.50 a. m. it would go forward again. This gave me 20 minutes to get ready to go forward with the barrage. It was all beautiful and impressive. This time I questioned Colonel R. carefully as to just what was expected of my battalion; and he told me that he expected that I would take the bluff (hills 462 and 463) some 1,500 yards west of Booby's Creek, that the barrage would then cease as shown by the fact that the beautiful parallel lines stopped there, and that I would then hold the position and exploit my success in so far as was possible in view of the condition of my battalion and of the comparative successes of the troops on my right and left.

Colonel R. also said that I might expect the 2d Battalion to be close up behind me at that time; that it would have orders to do what he (Colonel R.) thought best in view of the existing situation as shown by my reports—but *to be sure to send him reports.*

I returned to my farmhouse as in the other solutions, questioned Lieutenant Bright about the information

concerning the enemy, and received the same reply as before, viz., that the reports were very indefinite and that he could only say that it appeared that there was no enemy east of Booby's Creek. This information was not enough. I sent orders to the companies to send out patrols and bring back the desired information by 10 p. m. This was done, and I may state here that the information received was to the effect that there was surely no enemy east of Booby's Creek, but there were many Reds and some machine guns in the woods south of the bend. There was a Red line of sentinels on the west side of Booby's Creek and no patrol had been able to penetrate that line to determine whether it camouflaged a line of trenches or whether it was simply an outpost some thousand or more yards in front of their main line of resistance.

All of this information was received by 10 p. m., at which time the captains and the officers of special assisting troops were present in accordance with orders as issued in the Fourth Solution. This time, I knew a little more about the uses of the special assisting troops, and made my dispositions somewhat differently, but generally in ac-

cordance with a plan which pleased them:

(a) The signal detachment was ordered to connect me with the accompanying guns and also with Colonel R.'s headquarters as before; but this time, I decided to stay with them, making my headquarters with the detachment or rather making it a part of my headquarters. If I left the headquarters, I would leave Lieutenant Swift (my adjutant) and half of the orderlies with it and would take with me several of its members so that I could wig-wag back messages to anyone, which messages would be delivered by telephone or by orderly with the least possible delay.

(b) The engineers were given orders quite different from last time. Two platoons were detailed as wire cutters, to remain with the front line of the infantry and cut wire for them where they could not get through. Two other platoons were to accompany the tanks, to get them across Booby's Creek. For this purpose, they were to prepare certain fascines or logs which they would place on the tanks to carry forward with them and throw across the creek when they arrived there, so that the tanks would not get stuck in the creek.

(c) The two accompanying guns seemed to be all right, and their com-

mander claimed that he would keep up with me. I gave them the same orders as in the last solution.

(*d*) The stokes mortar man happened to mention that he had smoke and I at once decided that he would be able to blanket the machine guns on our left until the infantry could reach them; thereby many lives would be saved. I ordered them to put down smoke just as per the artillery barrage, taking position for that purpose in the cut just southeast of road crossing 420.

(*e*) The machine guns were given the same orders as before, viz., to watch me and keep their fire ahead of me.

(*f*) The tanks were told to keep in line with the infantry. On no account were they to get ahead of the infantry, nor were they to fall behind the infantry.¹

I then gave Captains B. and C. the same orders as in Fourth Solution. They would cover the front, north of the creek. They would spread out their skirmishers so as to cover the whole front except where Company D would be; Company D was given the same orders—to clear out the machine guns in the woods. Company C was the battalion reserve.

¹Order actually given to a tank organization in one of our largest battles in France.

The whole plan was gone over very carefully, and I explained to all that we had no limited objective, that we would follow the barrage to the bluff (hill 462-hill 463), where the barrage would cease. But that did not mean that we would stop. Our further actions at that time would depend on our condition and on the relative successes of the troops to our right and left.

After everyone had gone over the whole plan and had asked all possible questions, I dismissed them, and went to sleep confident that we would the next day take the position and enforce our will upon the enemy.

At 3.30 a. m., the signal corps man on duty waked us all up, and we went out on the field. I had previously decided that I would view the battle from hill 441, where the machine guns were located, and during the night the signal detachment had installed a telephone on the eastern slope. Also, some of the engineers had built me a small command post, nothing but a hole in the ground with a raised parapet carefully camouflaged, but so arranged that I could sweep the whole front with my field glasses. Everything was ready for the jump-off.

At 4.30 the barrage started, and off

we went. As before, the enemy's counter barrage came down, but my men knew how to get by it, so there were very few casualties. Company D, aided by the smoke of the Stokes mortars, made short work of cleaning out the machine guns in the woods south of the bend in Booby's Creek, with very little loss to itself.

It was a small job when properly handled, because there were only four Red machine guns in the woods. It was really only a small outpost.

Companies B and C followed the barrage with very little loss, and when the barrage halted for its 20 minutes on the north and south ridge through hill 442, Companies B and C in the creek bottom and Company D on hill 443 reformed and prepared for the farther advance. So far, everything had gone beautifully, and I sent a message back to Colonel R. to the effect that we were right up with the barrage, had just crossed the creek, and would go forward in fine shape; few losses so far.

Nothing had gone wrong, but I could not help feeling that this artillery barrage had been wasted so far. Every one knew that there was no enemy of importance east of the creek; yet this barrage had wasted thousands of rounds

of ammunition before we had reached the enemy front line of resistance.

I suppose that the man who drew those beautiful straight lines had started on the right some miles to the north where the enemy front line was due north of hill 442, and had just drawn his beautiful straight line due north and south, and then made the others parallel to it. I began to feel an aversion for beautiful straight lines, and in fact for parallel lines of any kind and for barrage lines in particular. I knew that I would soon want all of that ammunition which had been thrown into the straight line spaces; and I could see no reason why the barrage should put just as much ammunition on an unoccupied field as it did on an enemy front line.

I would have much preferred that at least 99 per cent of this ammunition had been thrown on the enemy's lines which we were soon to tackle and which so far had not received a single shot.

It appeared evident to me that I should move my command post to hill 443, as from that hill I could see the Red position some 1,000 yards to the west. Preferably, I would have placed my new command post on hill 442, but unfortunately it was included in those

beautiful parallel barrage lines and I was barred from it for twenty minutes; so I had to go to hill 443 which was nearly as good. I told the signal corps man to put a telephone as quickly as possible on hill 443 for me. Then, after telling Lieutenant Swift to take charge of the command post until the new telephone was established, I took two of the signal men with their flags and heliograph, and ran forward to hill 443.

By quick running, I got there with some 5 minutes to spare before the barrage would start again. I saw Captain D. on the hill top, his company being just east of the ridge, where the enemy could not see it. He pointed out to me the general line of the Red trenches and he showed positions where he supposed there were machine guns. This was rendered more probable because he had seen sudden spurts of dust followed some few seconds later by the rat-tat-tat of machine gun fire.

Off to the south we could see the line of the neighboring Blues extending our line over hill 446 and beyond.

Off to the north we could not see any line of Blues, but heard firing off to the northeast in the direction of Four Points and Martin's Mill. From this we judged that the Blues on our

north had been unable to keep up with the barrage, and that after we captured the Red position we would have to swing to the north and drive them away from the front of the Blues on our right. This seemed easy, as the ridge from hill 462 sloped to the northeast. Once we had hill 462, all of the Reds to the northeast would have to retreat or surrender. Captain D. also pointed out to me the lines of wire in front of the Red main line of resistance and I felt especially glad that I had decided to use half of my engineers as wire cutters instead of leaving them behind to guard the artillery or to fool around with bridges.

I was a little worried for fear that the tanks had not been able to get across the creek, but a glance to the north showed the noses of not less than eight tanks just in the edge of the woods on the west bank of the creek, so I felt sure that they were all across.

The telephone man was coming up on the run, stringing his wire as he came, but he could not make it before the barrage started again. However, I felt that there was plenty of time; it would be at least 18 minutes before the barrage actually struck the Red

line of trenches, and I could make all necessary dispositions in that time.

I studied the situation carefully and decided that I had made every possible arrangement, except as follows:

1. The two accompanying guns should concentrate their fire on the woods 350 yards southeast of hill 462, as it was evident that there were many enemy machine guns in those woods.

2. The machine guns should come forward and concentrate their fire on these same woods.

3. The Stokes mortars should cover the Red position with smoke.

4. On our right the Reds could enfilade us from the top of the ridge running northeast of hill 462. But this was out of my sector, and it was up to the man on my right. It so happened that he was not on my right (he was away behind), but it was not my fault if he had not kept up. He was responsible and he would suffer if anything went wrong.

It took me practically no time to make my decisions on these points, and I hurried to telephone to Lieutenant Swift, so that he could personally make all of the arrangements before he left the former command post. Luckily, I caught him just as he was leaving to join me, and told him to see the Stokes

mortars and machine guns, and to have me connected with the two accompanying guns. The results were not at all satisfactory. It took me some 15 minutes of telephoning to the accompanying guns and of sending messages back and forth by Lieutenant Swift to the machine guns and Stokes mortars before I finally got the matters fixed, and even then they were not fixed to my satisfaction. I shall consider them in order.

1. The commander of the accompanying guns said that he had accompanied me up to date by fire; that accompanying guns were not supposed to accompany by anything but fire; that he would lose too many trained artillerymen. I told him that was all right. He would continue to accompany me by fire, and that I wanted the fire on those woods 350 yards southeast of hill 462. This did not suit him at all. He said that he would have to put an observation post where the observer could see the woods and observe his registration shots. On being pinned down, I learned that he could get this all rigged up properly, make his registration shots, and begin shooting in some 40 minutes. This would be after the position had been taken or lost, so I tried to get him on some other scheme. He said that the

next best thing was for him to help by map firing, but that he would probably miss the target by some 100 yards. I told him then to map fire at hill 463, as my men were going to take hill 462, and if he would miss the woods by 100 yards, I would prefer to have him try his hand on some point where I knew the enemy was and where I knew my men would not be for some 30 minutes. He was to stop his map firing at exactly the time I prescribed, and that I would telephone him.

2. Lieutenant Swift ran over to see the machine gun commander, and told him I wanted him to move forward to hill 443 and help in the attack. To his surprise, Lieutenant Swift was told by the captain of the machine gun company that he had orders not to move forward; that his orders were to fire a barrage and then answer all calls for help; that he had been so instructed time and again by his machine gun battalion commander.¹ There was considerable argument on the part of Lieutenant Swift, but no results, so he returned and telephoned me. I did not waste time on the argument, but told Lieutenant Swift to tell him to answer my call for help, that I called for help

¹An actual occurrence in the battle of Meuse-Argonne.

by machine gun fire on the woods 350 yards southeast of hill 462. This message was taken over by Lieutenant Swift, but the result was again unsatisfactory. It appeared that hill 462 was just beyond the effective range of machine guns, and that the accuracy could not be trusted, consequently I decided to tell him not to fire.

3. With the Stokes mortars, Lieutenant Swift ran up against a very different kind of difficulty. He asked for smoke. The lieutenant in charge told him that all of the smoke shells had been expended in the work against the woods south of the bend to help Company D. He made a calculation, thus: 80 smoke shells per gun; each shell some 20 sq. yards; 2 guns; $2 \times 20 \times 80 = 3,200$ sq. yards, which was a little more than the area covered, but he had thrown in some extra ones in order to surely make the smoke effective. I had to acknowledge that it was effective, but I needed smoke again. However, there was no smoke. Therefore, I called for just plain explosive on the woods 350 yards southeast of hill 462. The Stokes mortar man expressed great regrets to Lieutenant Swift, but he scaled off the distance on the map and showed that it was some 2,800 yards, whereas the extreme effective range of Stokes mortars

is only 1,800 yards so we could not get the explosive shell. However, the Stokes mortar man showed a great willingness and anxiety to help. He started at once to move his mortars forward, and told Lieutenant Swift to assure me that in half an hour he would have his Stokes mortars in the creek just southeast of hill 443 and would then shell the woods in question. This was much too late, as the barrage was even now approaching the woods, and in a few minutes the battle would be lost or won.

I was powerless to assist my advancing line. The assisting artillery, machine guns and mortars were useless. But I could at least tell Colonel R. the situation. So, I telephoned him about the machine guns and the accompanying guns. He was very angry and sent a peremptory message to the machine gun commander to do at once anything ordered, but it was too late to save the situation. As usual, the poor infantryman was left alone, with a few engineers and tanks, and had to fight it out. I could do nothing more except pray for the effectiveness of the barrage, with its beautiful parallel lines.

Meanwhile, my line of men and tanks had crossed hill 442 and its north and south ridge, followed the barrage down its slope, and were now beginning to

ascend on the other side. To my surprise, the barrage was not as effective as I had been led to expect. It was evidently encouraging to the men; but it certainly did not entirely stop the fire of the Reds. By this, I mean not only the fire of the Red artillery some distance to the rear (which the barrage was not expected to touch) but also the fire of the Red machine guns in the Red line (which the barrage was expected to stop).

As I looked at my line, I saw that three of the tanks had been hit and stopped; the rest had crossed the bottom of the ravine and were ascending the slope, with my men abreast of them, a perfect target, but at least alongside of the tanks and ready to prevent them being blown up by special Red detachments. Every few seconds I would see a shell miss a tank and blow up some 8 or 10 men who were alongside.

It was deadly. Every shell that missed the tanks, hit the men alongside. But the shells were the least cause of the carnage. The Red machine guns in the Red concrete turrets (pill boxes) in front of us seemed to have no fear of a barrage at all.

From my position I could see the exact sweep of a machine gun, as man after man fell in order from right to

left. First, the gun would sweep from north to south, and the men would fall from south to north. It took about four sweeps to practically extinguish a line. Then the machine gun would switch to the interval between the next two tanks and again execute its sweeping.

Still, we were holding our own on the whole front, or at least we were following the barrage on our whole front, and on the right the machine guns seemed to be less effective. I had hopes that we would at least capture hill 462 and hold it until relief came. Lieutenant Swift rushed up to me with the information that the operator at our former command post said that the 2nd Battalion was coming forward at a double time. I felt that at least I would not have failed, if my right captured hill 462, and even then the wire cutters were in front of it cutting the wires. I saw the brave line of following men go forward and lie down while the wire was being cut. Many of the cutters were hit and could not go forward. Suddenly the line rose again, what was left of it, and started forward through the wire. I felt that hill 462 was surely won, and I was thankful that at least we had broken the Red line in one place and they would have to retire. However, I was

a little in error, some 50 yards in fact. For, just as my men began to run through the cut wire, Red machine guns opened on them from the ridge to the northeast of hill 462 (from the sector of the Blues on my right), and my men just ceased to exist. Some few threw up their hands, and walked forward as prisoners. The remainder fell, to rise no more.

I turned to telephone the result to Colonel R. I felt proud of my men, and I felt that I had made very few mistakes. I rang and rang and rang the bell, but could get no reply. The line was out. As a little touch of irony, I noticed that the two accompanying guns were firing on hill 463, with orders to continue firing until I told them to stop. The telephone wire was broken, and I could not tell them to stop. I did not care. I hoped that they would continue to fire until doomsday. I smiled at this, the final touch — and woke up.

By this time, my subconscious mind seemed to have about worked out a solution. The last effort on its part had been a good one, and I felt that I had at least made a good fight, but lost. I had learned some more things:

LESSONS

21. Know something about the ranges

and ammunition of the Stokes mortars. If you want an extra amount of smoke, arrange for an extra quantity of smoke shells.

22. Make your accompanying guns really accompany. This does not mean that they shall follow your tracks like a dog, but it does mean that they shall always have with the forward element an observer connected with the guns, who shall direct their fire always and quickly just where you tell them. In some cases the guns themselves should be on the front line, no matter how great their losses in *trained aritllerymen*.

23. Tanks should precede the infantry firing line, and demolish the machine gun nests. The tanks should protect the infantry against machine guns. It is not the duty of infantry to protect tanks against some prowling enemy with a few dynamite cartridges.

24. Machine guns, Stokes mortars, accompanying guns, etc., should all be directly under the command of the commanding officer. If not, he should have nothing to do with them except to learn what they may do. He should not expect them to do more than one thing; after that is done, he will have to win the battle, possibly with their help; but he should plan to win without such help, as it is rarely forthcoming.

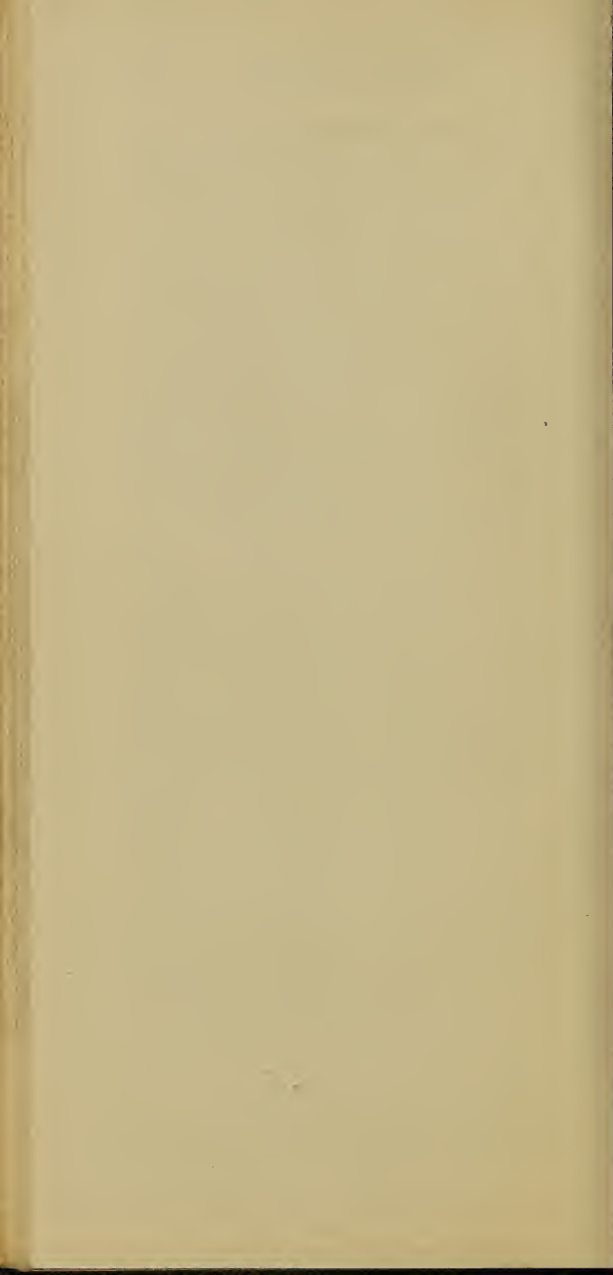
25. Connecting groups shall fill the space between two adjacent units. These groups are preferably sent out by the higher commanders, but if not thus sent out, the commander of the assaulting groups will send out some of his own. It is an excuse to be able to say that the higher commanders did not send out the connecting groups; but saying so does not prevent enfilade on the enemy's part and does not bring the dead to life.

26. A small amount of artillery barrage will keep up the courage of the attacking line. Beyond that, shells are wasted which have no definite aim. A perfect attack would consist of a light barrage behind which the troops would follow, accompanied by strong concentrations against points which are known or properly believed to be held by the enemy. The line of greatest concentration would be just the reverse of parallel and straight. It would resemble a corkscrew. The probable strong positions of the enemy should be selected beforehand and the artillery should be concentrated on these places just before the barrage (or infantry line) reaches them.

27. The assault commander should have as many guns directly under his command as he can possibly use. He

should not be allowed to control the stopping or starting of the barrage, but he should be able to control at least in part the corkscrew line of greatest concentration of guns. In some cases, the barrage line may be omitted altogether.

28. In spite of all barrages and concentrations of artillery fire, the enemy machine guns sheltered by concrete turrets (pill-boxes) will not be at all affected unless directly hit. In the final analysis, the tank must smash them or the infantryman must take them.



AN APPROVED SOLUTION

AT 6 p.m. I was at the meeting of field and staff officers at Colonel R's headquarters. This time I decided to study the proposition while at his headquarters and not wait until I returned to my farmhouse. Colonel R was very anxious to assist all of us, and he told me that he would explain anything that did not seem perfectly clear to me.

I promptly saw that my battalion was going to have the hardest nut to crack. In fact, it was to follow the barrage to its stopping point—the bluffs of hill 462 hill 463—and then what was left of my battalion would naturally be expected to exploit the success or just hold its own, depending upon whether it was in any kind of shape or only just able to hold on.

With all due respect to Colonel R, I decided that I would see that nothing had been forgotten and that nothing could be improved by any suggestion of mine. I had always made it a rule to see that my senior officer understood perfectly my own information or conclusions as regards anything about which I had any dealings with him; then, no matter what he decided, I would do my utmost to carry it to a successful conclusion. On several occasions I had

met with commanders who, either through ignorance or a lack of understanding of the best method of getting results, would not listen to a suggestion and who always acted as if any suggestion was a criticism of their intelligence. With such commanders, it is a mistake to be associated, and I had always managed to sever my connection with them and their operations in a very short time. As a result, I now enjoyed a reputation of being an officer who said what he thought, but who always got results. In this case, I hoped to maintain this reputation of getting results, and I felt that I stood an excellent chance, because Colonel R was an unusual regimental commander in that he was patient and intelligent and very anxious to do everything possible to assist his subordinates to obtain the desired results.

First, I invited his attention to the beautiful system of parallel barrage lines. It did not suit me, as I felt that most of the ammunition would be wasted in unoccupied fields, but Colonel R said that this was an established system which had survived many criticisms; that it encouraged the men who followed it; that he tried to get it changed, as he wished to concentrate more fire on special places, but had been

unable to do so. However, he called my attention to the two accompanying guns, said that I could see that their fire was concentrated on any point that I wished. I told him that the concentrated fire of two accompanying guns would not be very effective, and asked him to get me more. He telephoned to the brigade headquarters, and after a little time, word was received that we could have two more accompanying guns, a total of four. This helped a great deal.

Then I asked Colonel R exactly what were the orders of the machine gun company which was to assist me. He said that it was to assist me, and that he considered that it was a matter entirely in my own hands. I agreed with him that it should be entirely in my own hands, but I mentioned a few cases in various battles in Europe where the commander of the assisting machine guns was of the opinion, and was so ordered by his machine gun commander, that he was to assist in his own manner and not in my manner. So we called in the machine gun battalion commander and he was given orders to have his machine gun company placed entirely at my disposal, to be used in any manner I saw fit, much to the chagrin of the machine gun battalion commander.

More tanks were needed, and I tried

to get them. Colonel R said that he had no more to give me, and I could not make him see it differently.

When it came to light mortars, I wanted them all, and I soon convinced Colonel R that I could use them better than anyone else. However, he was loth to let them go entirely out of his hands. So it was finally arranged that I should have two sections entirely at my own disposal, and that the third section would fire smoke into the woods south of the bend in Booby's Creek, but would pass back to Colonel R's direct command as soon as I advanced beyond these woods. I asked for and received double the usual amount of smoke shell, as one of my lessons had taught me that smoke is very necessary in an open assault.

Also, I managed to secure a Pioneer platoon of the headquarters company, to act as wire cutters. I tried to get some non-persistent gas for the woods south of the bend, but Colonel R said that the regiment had no gas troops whatever at its disposal.

As a result of these final changes in orders I now had at my disposal:

- 1 signal detachment
- 1 company of engineers
- 4 artillery accompanying guns
- 2 light mortar sections (third section temporarily)

1 machine gun company

2 platoons tanks

Remembering now that enfilading was very possible from either of my flanks, if I got ahead of the troops on either flank, I asked Colonel R what provisions had been made for connecting groups. He said that no provisions had been made; that the brigade commander thought this could be mutually arranged between the battalion commanders on the field. I called Colonel R's attention to the fact that the battalion on our right was commanded by old Major Grouch, and that no one had ever made any mutual arrangement with him; that he did not understand any such thing as mutual arrangements; that the only thing he understood was a clear and distinct order. Seeing that Colonel R was not averse to listening to me, I spread myself on this point. I told him that this business of mutual arrangement on the field never had worked; that it was only a dodge employed by a senior commander to avoid unnecessary detail or to pass on to the men in the field a problem with which the commander felt himself unable to cope, owing to natural inability or to lack of information, and in neither case was he doing his full duty. Colonel R finally agreed to take up the matter again with the brigade

commander, and promised me that if the brigade commander would not issue the necessary order for the connecting groups, he would himself provide the necessary groups from his two remaining battalions in order to be sure that my line was not enfiladed. Everything being arranged as well as I could expect, I left Colonel R with his final admonition ringing in my ears: "Keep connected with headquarters, and send me reports."

On my return to my farmhouse I sent for all of the captains and for the commanders of the special troops to meet me at 10.00 p. m. Meanwhile, as Lieutenant Bright said that the information of the enemy was not very definite, I ordered special patrols sent out along the front, each patrol being ordered to go in a general westwardly direction until it encountered the Reds. Two special patrols were sent to find out if the Reds were occupying the woods in the bend south of the creek, and if so with what arms and in what strength. The reports came back as in the previous solution, being definite and clear, to the effect that Red sentinels were all along the west bank of Booby's Creek, either as outposts or hiding in an intrenched line; that the Red machine guns were

occupying the south bank of the bend in Booby's Creek.

At 10.00 p. m. the officers were assembled, and I gave my orders somewhat as in the Fifth Solution, with some changes especially as to light mortars, accompanying guns, and machine guns. This time I did not ask them what pleased them, but assigned them to duties in accordance with my own ideas. I give below the orders in a general way, so that the complete plan will be evident:

(a) The signal detachment was ordered to connect me with the accompanying guns and also with Colonel R's headquarters. As in Fifth Solution, I decided to stay with the signal detachment, making my headquarters with it, or rather making it a part of my headquarters. If I left the headquarters I would leave Lieutenant Swift (my adjutant) and half of the orderlies with it, and would take with me several of the members so that I could wig-wag back messages to any one, which messages would be delivered by telephone or by orderly with the least possible delay.

(b) Two platoons of engineers were detailed to accompany the tanks and help them across the creek by improvised logs or fascines. Two other platoons were detailed to assist the infantry front

line as wire cutters, supplementing the wire cutters of the pioneer platoon.

(c) The four accompanying guns were placed in their position in the ravine as before, but this time they were ordered to shoot on fixed targets; and *I gave them* the targets, viz., the woods south of the bend along with the barrage until it made its twenty-minute stop; thereafter, the woods 350 yards southeast of hill 462 until I gave orders to the contrary. Always the accompanying guns would have an agent with me to send them word in case I wanted these targets changed at any time.

(d) One of the light mortar sections was given exactly the same orders as in last solution, viz, to take position in the cut just southeast of road crossing 420, and to blanket with smoke the machine guns in the woods south of the bend. The two remaining sections were told to remain east of hill 441 until the woods south of the bend had been cleared, or at least partially cleared, and until the Blues on our left had advanced enough to render their movement fairly safe; then they were to move forward as fast as reasonable safety permitted to a position in the woods southeast of hill 443 and prepare to fire on the ridge 1200 yards to the west with smoke or high explosive as I should order. The first

section, when its work of firing on the woods had been completed with success, would remain in its position subject to the direct orders of Colonel R.

(*e*) The machine guns were told to take position on hill 441 as before, but they were told to send half of their guns forward at the same time and in the same degree of safety as the light mortars, the rest of their guns to come forward similarly through the woods as soon as the barrage had stopped for its twenty-minute play on hill 442 and its corresponding ridge.

(*f*) The tanks were told to keep some fifty yards ahead of the infantry, which actually meant that the nose of each tank would be in the back of our barrage and would receive shell splinters. This would do no damage and was to be expected. The tanks were specially instructed to watch out for machine gun nests and concrete turrets (pill boxes), and their special duty was to sit upon these at the first opportunity and mash them out of existence. In other words, the tanks were to help the infantry, and not serve to draw the enemy fire to themselves and the infantry.

(*g*) The pioneer platoon was detailed as wire cutters to go along with the infantry. These, added to the engineer wire cutters, made me now have about

one squad of wire cutters to each platoon of infantry.

I then gave Captains B and C orders to cover all of the front from the right to the bend in the creek where Company D would be, and that this would be covered with skirmishers at any interval they found necessary. Company D was given the orders to clear out the machine guns in the woods south of the bend in the creek. Company A was the battalion reserve.

Every one was encouraged to ask questions, and the whole plan was gone over time after time until each understood the part he was to perform and the part that the other was to perform to assist him. I told Captain B that Colonel R would have a connecting group over on our right, and I told Captain D that he would likewise find that Colonel R had a connecting group on our left. I called the special attention of all to the fact that we would follow the barrage to the bluff, hill 462—hill 463, where the barrage would cease; but that we would take the hill, and then exploit our success in the best possible manner. It was now about 11.45 p.m. and, as all seemed to thoroughly understand the whole plan, they were dismissed.

At 3.30 a.m. the signal corps man

woke us up, and we went to our new command post on hill 441, where the signal detachment had installed a telephone during the night, and where the pioneer platoon had built me a regular command post according to the book, with a lookout thoroughly camouflaged and splinter proof. I took my position and waited anxiously for 4.30 a. m. to come and for the fight to begin.

Even the slowest time eventually passes, so finally 4.30 a. m. came and with it our barrage. I shall not go into great detail as to how every little matter was attended to by my men, but suffice it to say that Company D very quickly cleaned up the woods south of the bend in the creek, capturing the four enemy machine guns with practically no loss. Companies B and C followed the barrage closely, Company D fell in on the left, and all arrived on time at the creek bottom and my line lay in position along the creek bottom and the east face of hill 443, while the artillery barrage played its rain of lead for twenty minutes on hill 442 and the ridge to the south, where there were no Reds.

At the earliest possible moment I moved to hill 443, taking with me some signal corps men with wig-wag and helio, leaving Lieutenant Swift to hold the old command post until the telephone

man could connect me up with a telephone on hill 443. This he at once started out to do, but had not quite arrived when the twenty minutes was up, and the artillery barrage again started on its tour of the country.

My line quickly rose and followed the barrage and encountered a perfect storm of lead as soon as it crossed hill 442 and ridge to south of it. However, in a very few minutes, and just as I had ordered, the four light mortars put smoke all along the ridge to the west in a thoroughly business-like manner and the Red shooting became very inaccurate. It is true that the smoke screen was never entirely effective, because the wind was continually blowing it away, but it was very useful. The tanks waddled forward and disappeared into the smoke and soon my men were swallowed up in it. The wind was unfortunately blowing a little in our direction, and it was impossible to keep their location covered with smoke; but the light mortars kept at it and managed to keep the front slope of the Red position covered by smoke so that only the top of the bluff was visible through it.

I now issued orders to the accompanying guns to switch to hill 463, as I could not be sure how far my men had advanced in the smoke and just when

they would come forward into our own fire. The machine guns were also brought up out of the woods near the light mortars and told to concentrate direct fire on hill 463. The light mortars were told to raise their fire so as to clear bluff hill 462—hill 463, and fire upon its reverse slope, but this time they were to use high explosive, as I wished to prevent any Reds coming up to counter-attack my men when they took the position.

Off to the south I noticed that the neighboring Blues were well up and were following the barrage closely; therefore I felt safe for that flank. Off to the north it was not so favorable. Major Grouch's men could not be seen, but I noticed shells bursting near Four Points and Martin's Mill; so I judged that he had lost the barrage and would not catch up. Therefore I saw that my right was subject to enfilade as soon as the smoke cleared. I looked in vain for the connecting group, but I did not really expect to see it, as it was necessarily small. Just then the telephone rang, and Lieutenant Swift reported from my old command post that a message had been received from the connecting group that it was at the ravine junction of Booby's Creek 425 yards west of hill 407; that it had uncovered

several Red machine guns on the ridge running northeast from hill 462, and that it could go no farther. I saw that, while I was really winning, my right was in a rather precarious situation, and it might at any moment be enfiladed by machine guns, all due to the failure of Major Grouch to do his part. However, there was no help for it and I must travel alone. I promptly ordered Company A, which was now in reserve in the creek bottom just east of hill 442, to go straight over the ridge to the northwest, cross the ravine and capture and hold the ridge extending northeast from hill 462. This was my last reserve, and if the enemy counter-attacked in force I was helpless and ruined. However, I felt that there was nothing else to do; the reserve is for use, not for treasure. Even so, I decided that Colonel R should now send forward the 2nd Battalion; so I telephoned him, explaining the situation, and stating that I had no reserve left, and requesting that he send forward the 2nd Battalion at once. He replied that the 2nd Battalion was already on its way and was even now at road crossing 420; and that he would send its major orders to report to me. With a great sigh of relief I turned to the front, thoroughly satisfied that I would now win the ridge.

As I looked, I saw the barrage emerge from the smoke, top hills 462 and 463, and start over to the far side. Here it again held its position, this time for some thirty minutes. I suddenly remembered that Colonel R's order said that it would hold its final position for thirty minutes; and I saw that all of my light mortar high explosive had been more or less wasted. However, it did no harm and possibly may have driven back some reserves who might have reached the hilltops before our barrage reached its final objective. In less than two minutes afterward I saw the tanks slowly waddling out of the smoke, breaking through the wire and roving up and down the Red trenches. Next I saw my infantry line stop and lie down in front of the wire, except where a few men followed through after the tanks; the wire cutters started their work and many of them did not finish. Then the line rose, charged through the wire and fell upon the Red position. It was captured. I ordered the machine guns and accompanying guns to stop firing, and turned to telephone Colonel R that we had won the Red position. However, I was a little premature in my announcement. Just at this moment the Red machine guns over in Major Grouch's sector opened up on my line and enfi-

laded it with deadly effect. My men promptly lay down, and many of them began to run back to the cover of the smoke. The rat-tat-tat of the Red machine guns continued without intermission and I saw that I could not hold the line even after its capture unless those machine guns were stopped. I looked anxiously to the north, but the bursting shells at Four Points showed that Major Grouch's men were still fighting at that place, 1000 yards away from where they should have been in order to help us properly. I pinned my faith then on Company A, and I was not disappointed. In less than one minute after the machine guns opened, I heard wild yells from that direction and some rifle shots; and then the Red machine guns stopped firing. Company A had taken the ridge and the machine guns.

The exploitation of our victory was a matter not so easily decided. I saw the 2nd Battalion coming on over the ridge from which I had started. I did not know what to do; whether to have it swing to our right in order to clear up the Red line, or whether to have it follow directly west after the fleeing Reds. I seized the telephone and asked for Colonel R himself. He decided for me, with a broader vision than I had. He decided for the greatest results, with no

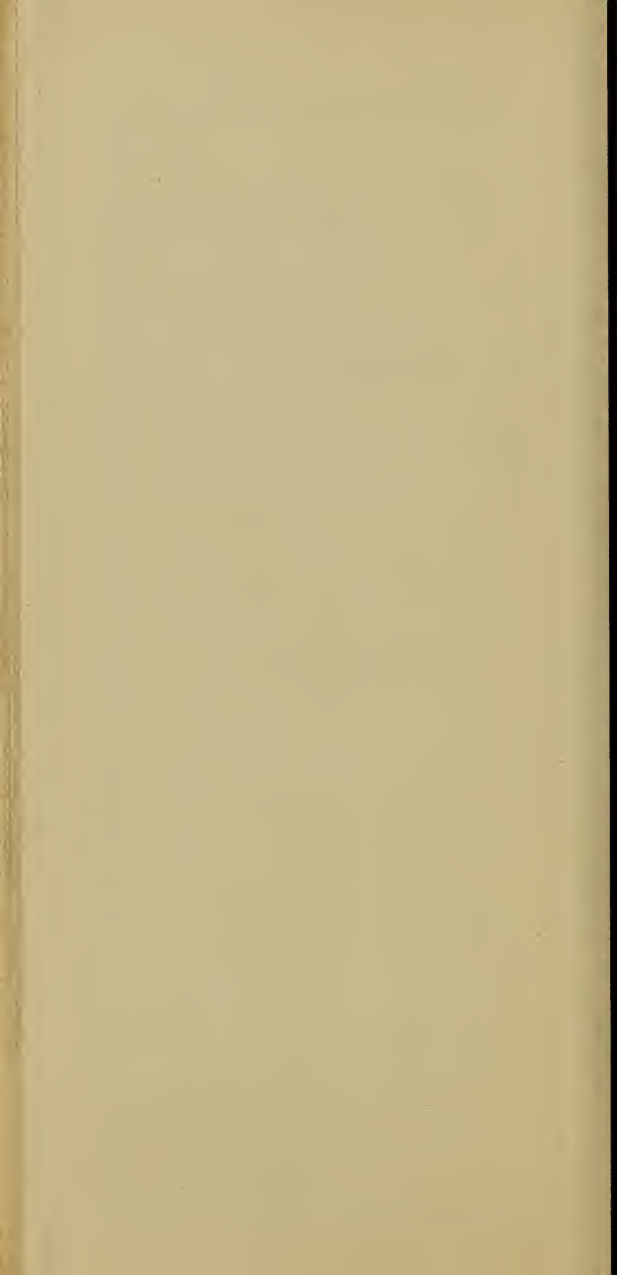
idea of personal glory for himself or his regiment. He ordered that the 2nd Battalion swing to the north and drive out the Reds who were holding back Major Grouch's battalion. From our present line we were close enough to the mountain passes immediately to our west to block them by artillery fire, but farther north it was necessary that our forces win a more complete victory and drive the Reds back much farther in order that our line to the north might be approximately the same distance from the mountain passes as my own troops now were. Also, in that direction lay Emmitsburg, a great depot of Red supplies. So, when the 2nd Battalion arrived, I told it to roll up the Reds to the north of us, and to proceed more or less independently of my men, but that I would help if they so desired. The major promptly made his dispositions and started on his way. Very soon the firing in Four Points ceased, and I knew that our 2nd Battalion had been successful. In fact, I learned later that it had captured many prisoners and covered itself with distinction.

I went forward to hill 463 and looked over the situation. It was evident that my battalion could not go much farther. I gave orders for each company to send forward one platoon 1,000 yards and

establish an outpost; meanwhile the rest of each company was to be reorganized and to prepare the position for defense against counter-attack. My losses had been very heavy; some 65 per cent of my battalion had been killed or wounded. All were tired and worn with the stress of battle. But each man walked proudly, with an air which said for itself that the owner of his haughty air had been in "The Battle of Booby's Bluffs."

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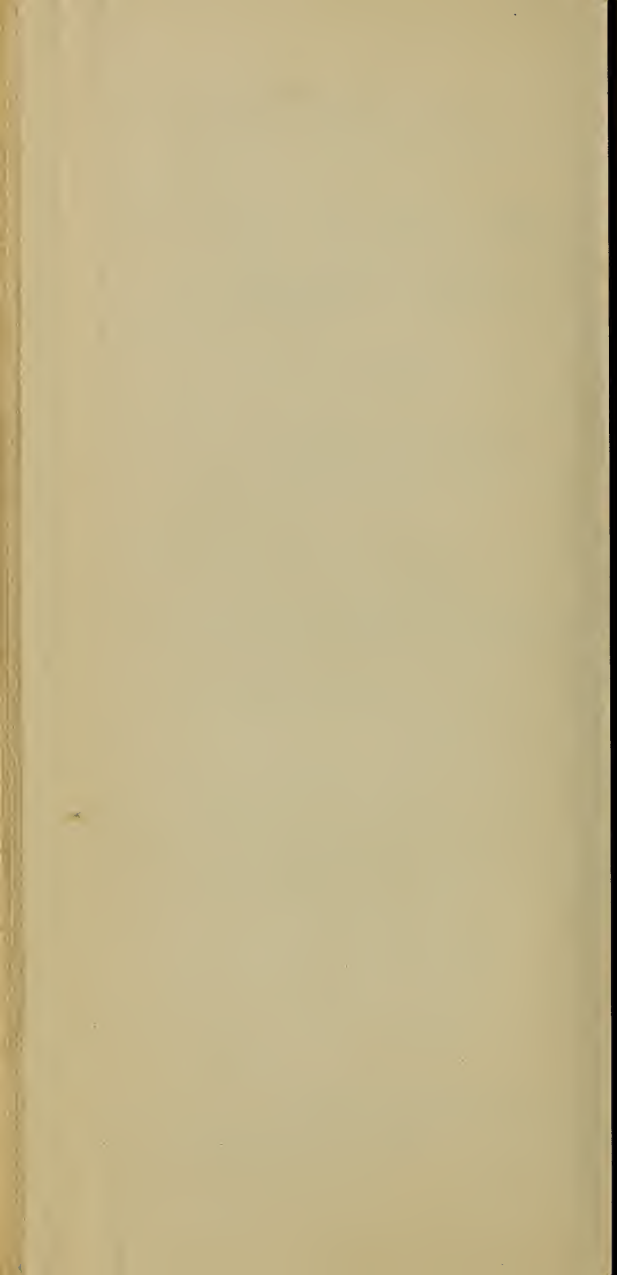
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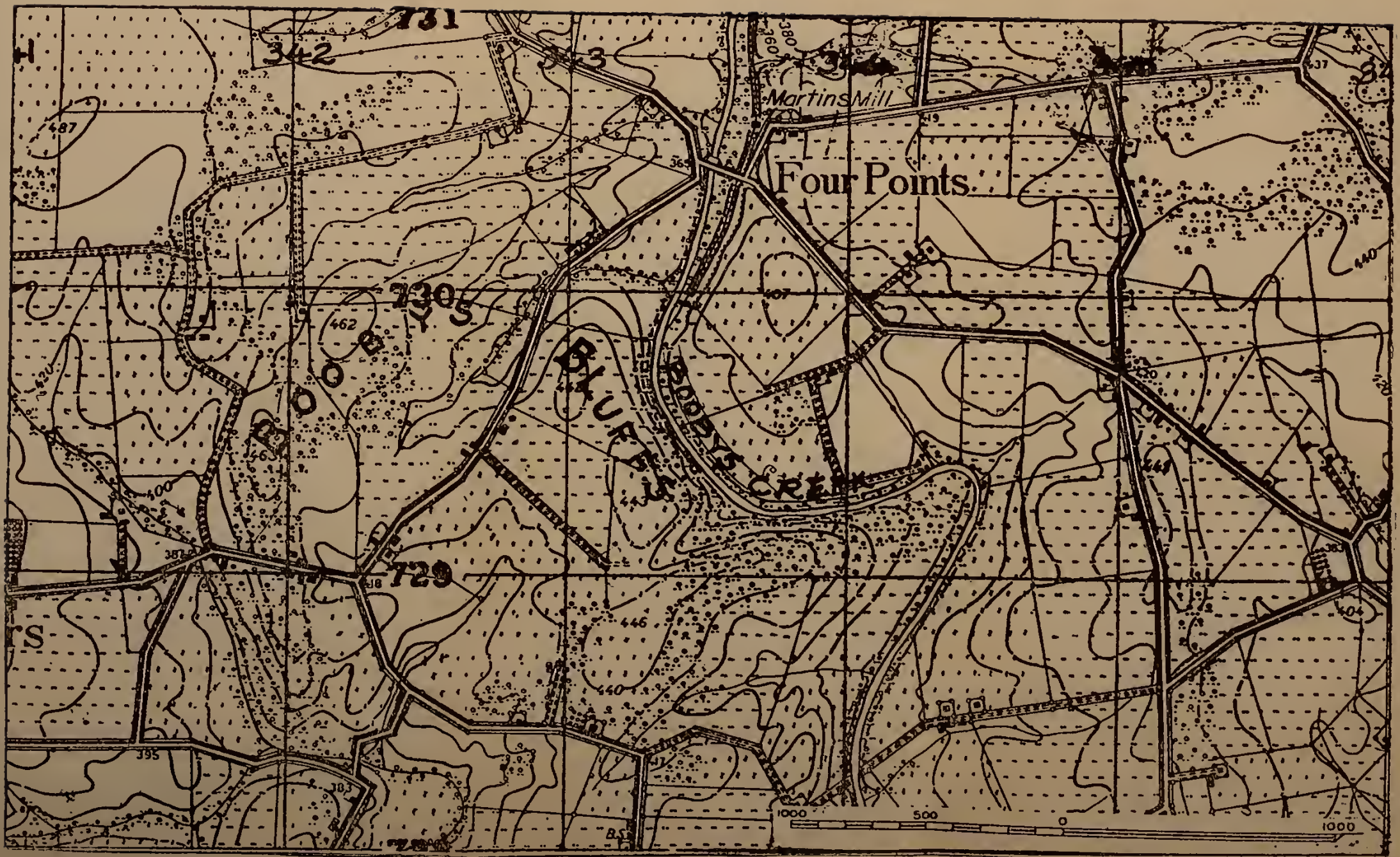
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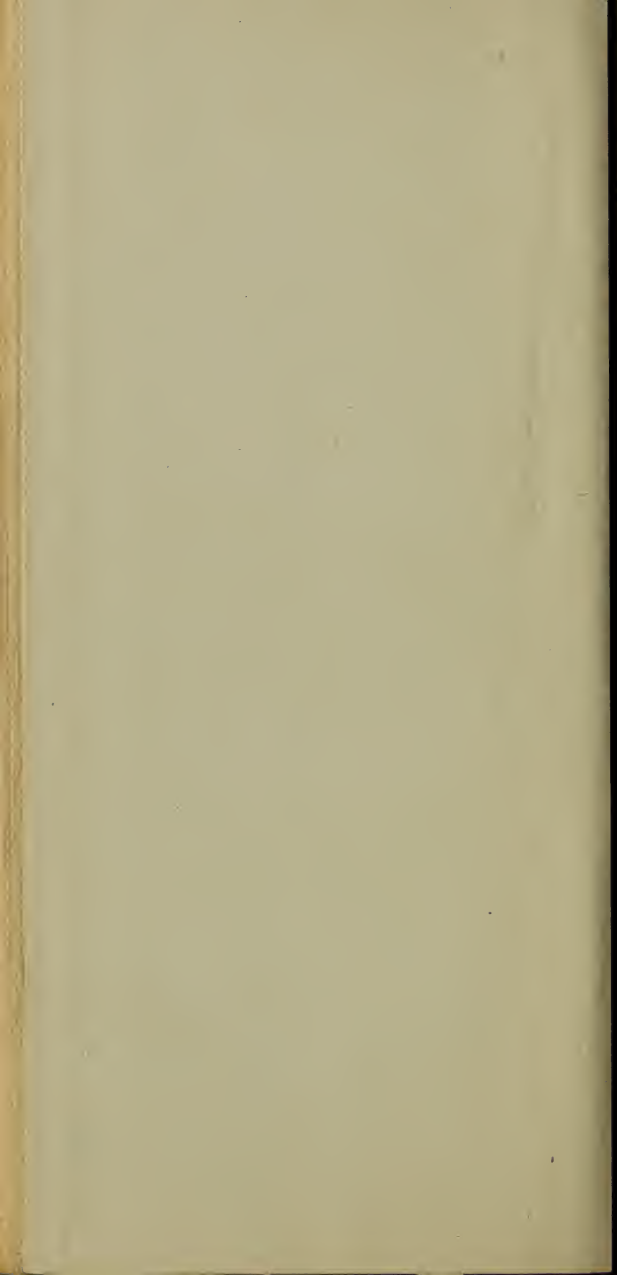
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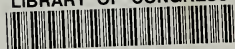






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